



COMPLETE DICTIONARY

O F

M U S I C.







A  
COMPLETE DICTIONARY  
OF  
M U S I C.

CONSISTING OF

A copious Explanation of all Words necessary to a true  
Knowledge and Understanding of

M U S I C.

---

Translated from the Original FRENCH of  
J. J. R O U S S E A U.

---

By W I L L I A M W A R I N G.

---

SECOND EDITION.

---

L O N D O N,  
PRINTED FOR J. MURRAY, N<sup>o</sup>. 32, FLEET-STREET; AND  
LUKE WHITE, DUBLIN.

MDCCLXXIX.



---

# MUSICAL DICTIONARY.

---

## A

**A** BATTUTA. Vide TIME.

**A** MI LA, or, A LA MI RE, or simply A, the sixth note of the natural and diatonic Gamut, which is also indifferently called LA.

**A TEMPO**, This expression is of a similar signification to a Battuta, and is used when following a Recitative, to denote the place where one should begin to sing in time.

**ACADEMY OF MUSIC**, or **MUSICAL ACADEMY**, By this name, formerly in France, and still in Italy, were called an assembly of Musicians, or of Dilettantes, that is to say, those who frequented Concerts for pleasure only, to which the French have since given the name of Concertos. Vide CONCERTO.

**ROYAL MUSICAL ACADEMY**, Is a title which is still borne by the Opera of Paris. I will not here make any mention of this celebrated establishment, unless, that amongst all the Academies of that kingdom, or of the world in general, *that* may, assuredly, lay the greatest claim to fame. Vide OPERA.

**ACCENT**, By this name is called, according to the most general acceptation, every modulation of the voice, while speaking, during its continuance, or in the sound of the syllables, and words, of which the discourse is composed, which denotes an exact union between the two variations of the Accents, and the two divisions of Melody.

**AC**, That is to say, the Rhyme, and the Musical Harmony. Accentus, says the Grammarian Sergius in Donatus, is, as it were, ad Cantus. There are as many different Accents, as there are methods of modulating the voice thereunto, and there are as many various kinds of Accents as there are general causes for such modulations. In common discourse, there are distinguished three of these kinds, to wit, the Grammatical Accent which confines the rule of Accents, properly so called, by which the sound of the syllables is grave or acute, and that of the quantity, by which each syllable is short or long: Secondly, The Logic or Rational Accent, which, by many, is confusedly intermixed with the foregoing: This second kind of Accent, denoting

noting the relation, the lesser or greater connection, that Propositions or Ideas have between themselves, is marked chiefly by Punctuation. Lastly, The Pathetic, or Accent of Oratory, which, by different variations of the voice, by a tone more or less elevated, by a method of discourse quicker, or more slow, expresses those sentiments which agitate the speaker, and communicates them to the audience. A study of these various Accents, and of their uses in language, should be the main business of a musician; and Dennis of Halicarnassus, looks, with justice, on Accent in general, as the foundation of every branch in music: For which reason, we also ought to admit as an incontestible maxim, that a greater or less degree of Accent, is the real cause which renders language more or less musical; for what relation could music bear to discourse, were not the modulations of the finger an imitation of the verbal Accents. From whence it follows, that the less quantity a language has of such like Accents, more the harmony thereof must be monotonized, languishing, and disgustful, unless it seeks, in the height and force of sounds, those charms which cannot be found in their variety.

In regard to the Pathetic and Oratorical Accent, which is the most principal object of the imitative music of the theatre, no one can oppose the maxim which I have just laid down, that every man being subject to the same passions, ought to have a similar expression of them; for the universal Accent of nature, which draws from every man inarticulate sounds, is one thing, and the Accent of language, which produces an harmony peculiar to a nation, is another. The difference of a greater or less imagination or sensibility which may be distinguished between one people and another, ought of itself to introduce an infinite variety in the accented idioms of a tongue, if I have liberty to express myself thus. The German, for example, raises equally and roughly his voice, when in a rage, he cries ever in the same tone; the Italian, whom a thousand different motions agitate quick and successively from the same cause, varies his voice in a thousand different strains. The same foundation of passion directs his soul; but what a variety of expression in his Accents and his language! Moreover, 'tis to this variety alone, when the musician knows the imitation of it, that he owes the energy and beauty of his Cantata. Unluckily all these different Accents, which are perfectly concordant in the mouth of an orator, are not so easy to collect under the pen of a musician, already so restrained by the particular rules of his art. There is no doubt to be made, but that the most perfect, or at least the most expressive music, is *that* wherein all the Accents are observed with the greatest nicety; but what renders this assemblage so difficult, is, that too many rules in this art are subject to a mutual

tual contrariety, and are so much the more contrary, as the language is less musical, for none is perfectly so, otherwise those who use it would sing, instead of speaking.

This great difficulty in following, upon trust, the rules of all the Accents, obliges then often the composer to give the preference to one or the other, according to the different kinds of music of which he is beating. For example, the airs of dancing require particularly an Accent of rhyme and cadence, the nature of which is in every nation determined by the language. The Grammatical Accent ought to be the first consulted in the Recitative, to render the pronunciation of the words more articulate, which is used to be lost through the volubility of the discourse, in the harmonic sound; but that Accent which expresses the passion, claims the precedence in its turn in dramatic airs; and both are subordinate, particularly in symphony, to a third kind of Accent, which might be styled musical, and is in some respects determined by the nature of that melody which the musician wishes to appropriate to the words.

In fine, the first and chief design of every kind of music, is to please the ear, wherefore every air should have an agreeable note: herein lies the first law, which is never suffered to be violated.—It is necessary then, first to consult the harmony and the musical Accent in the composition of any air whatsoever; then, should our design be a dramatic and imitative Cantata, we must seek the Pathetic Accent, which gives to each sentiment its proper expression, and the rational Accent, by the assistance of which, the musician enters with justice into the ideas of the poet; for to inflame others with that warmth, wherewith ourselves are animated in speaking to them, we must make *them* comprehend what is the subject of our discourse. The Grammatical Accent is necessary for the same reason; and this rule, though placed here the last in order, is not less indispensable than the two former, since the sense of propositions and phrases depends entirely on that of words. But the musician who understands his language, has seldom occasion to be attentive to this Accent; he cannot sing his air without perceiving if he speaks ill or well; and it is sufficient that he knows, that it is always necessary to speak well. Happy is it always, when a flowing and flexible melody never ceases to unite itself to the natural exigencies of language. The French musicians in particular, have assistances, which in this case render their errors unpardonable; and above all, the Treatise on the French Rosody, by Mons. L'Abbi d'Olivet, which every one should consult. Those, who will be in a condition to raise themselves to a higher sphere, should study the Grammar of Port Royal, and the ingenious notes of the philosopher who has commented on it: then, by building the experiments on the rules, and the rules on their principles,

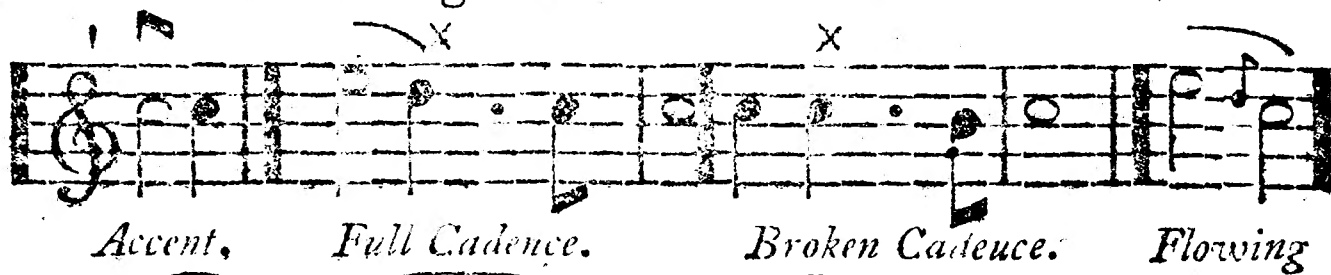
principles, they will be always certain of what they should do in the management of the Grammatical Accent in every shape.

In regard to the two other kinds of Accents, they can be reduced into a lesser number of rules, and the practice of them requires less study, and more genius. There cannot be found any kind of Sang-froid in the language of the passions; and it is a well known truth, that to inspire another with feeling, we must feel ourselves. Nothing then can, in the search of the Pathetic Accent, supply the place of that natural fire, which awakens at pleasure every sentiment; and there is no other art in this case necessary, but to light up in one's own soul, that flame, which we wish to convey into the hearts of others. (Vide FIRE.) Is the rational Accent the object of our concerns? Art has but little to do in the acquiring of it, for this reason, that the deaf cannot be taught to hear. It must be confessed also, that this Accent is, in a less degree than the others, the result of music, because music is much more the language of the senses than of the mind. Give then a number of images, or sentiments, and few simple ideas, to be discussed by the musician, for it is the passions alone that sing, the understanding consists but in the speech.

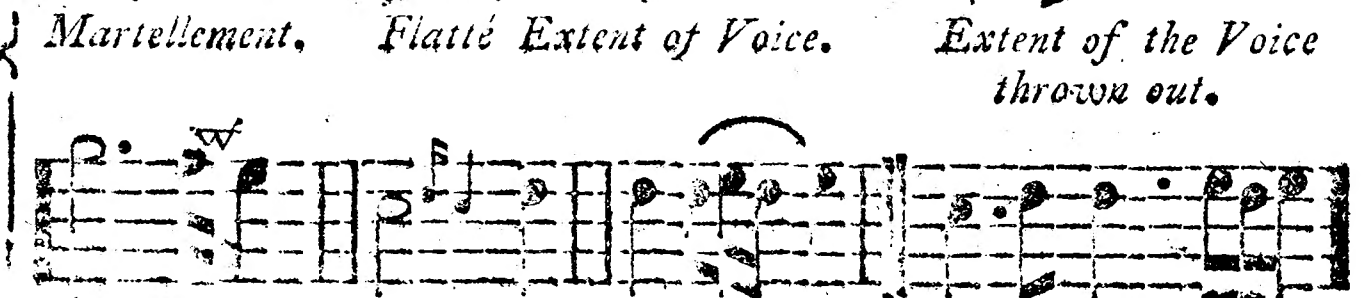
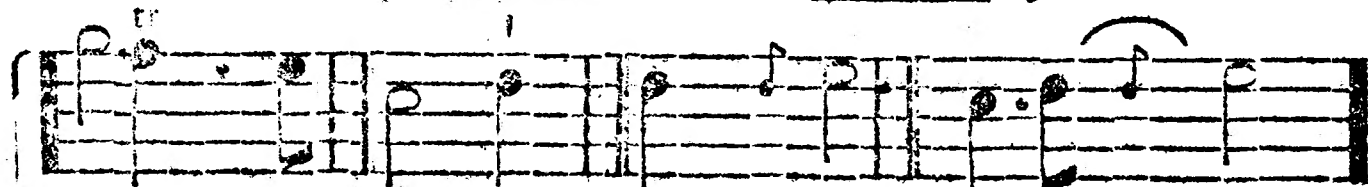
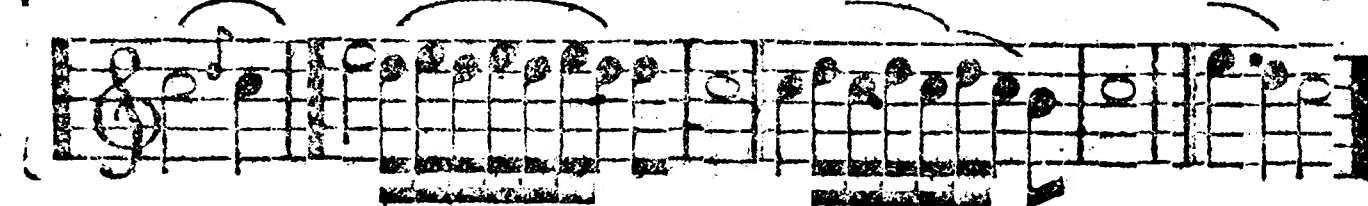
ACCENT, A kind of mark in the French singing, which was formerly affixed to the music, but which at present the masters of the Gout du Chant, or Parte in singing, mark with pencil only, until the scholars understand themselves the method of placing it. This Accent is only used on a long syllable, and serves as a conveyance from one note thus marked to another note without this mark, placed upon the same degree. It consists in an elevation of the throat, which raises the sound a degree, to give, in that instant, the following note the same sound which it has left. Many have given the name of Plainte to this Accent. Vide the Sign and Effect of the ACCENT.

Graces

Signs.



The Effect.



**ACCENTS,** The poets often use this word in the plural to signify the song itself, and ordinarily adjoin to it an epithet, as sweet, tender, mournful Accents. In this case, this word receives exactly the sense of its root, from whence arises the derivation; for it is formed from Canere, Cantus, whence is derived Accentus, as well as Conventus.

**ACCIDENT, ACCIDENTAL,** We call accident, or accidental signs, the B mollare's, the Diesis's, or B Quadrato's, which are met with by accident in the course of an air, and which, consequently not being at the key, have no relation to the mode or principal system. (Vide Diesis, B mollare, Mode, Cleff or Key.) We call also accidental or ledger lines, those which are added above or below the usual horizontal five, to fix the notes which are beyond their limits. Vide LINE.

**ACCOMPANIST,** He, who in a Concert, accompanies the band with the organ, the harpsichord, or any other accompanying instrument. Vide ACCOMPANYING.

It is absolutely necessary, that a good accompanist be a skilful musician; that he be acquainted with the foundation of harmony; that he know perfectly his system of music; that he have a sensible ear, pliant fingers, and a well founded taste.

'Tis the business of the accompanist to fix the key for the voices, and to give the change of motion to the orchestra. The first of these offices requires him to have always under the finger the note of music, to restrike it when necessary, and to raise or set right the voice when it weakens, or is bewildered. The second requires him to strike the bass; and his accompanying with a firm stroke, equal laid out, and well regulated on each side, for the purpose of rendering the musicians sensible of the time, particularly in the beginning of airs.

In the three following articles may be found those details which are wanting in the present.

**ACCOMPANYING,** Is the execution of a complete and regular harmony on an instrument proper for rendering it so, viz. the organ, the harpsichord, the theorbo, the guittar, &c. &c. We will take here, as an example, the harpsichord, as it is the only instrument continued in use for accompanying.

There is given, as a direction, one of the parts of music, which is ordinarily the bass. That bass must be touched with the left-hand, and with the right the harmony expressed by the tone of the bass, by the melody of the other parts, which are playing at the same time, by the partition which is placed before the eyes, or by the cyphers which are found added to the bass. The Italians hold the cyphers in contempt, the partition itself is of little service to them; the quickness and nicety of the ear supplies their place, and they accompany extremely well without



without all this preparation : but it is to their natural disposition alone that they are indebted for this facility ; and another people, not born to music like themselves, find in the execution of the accompanying, several difficulties almost insurmountable. Eight or ten years are necessary for succeeding therein in any tolerable degree. What then can be the causes that retard, in this manner, the advancement of young practitioners, and embarrass, for so long a time, the masters, unless the difficulty of the art alone is the occasion of it ? There are two principal reasons : the one lies in the method of marking the cyphers on the bass ; the other, in the manner of the accompaniment. Let us first treat of the former.

The signs which are made use of for the purpose of forming the cyphers on the bass, are far too numerous. Since there are so few fundamental concords, why are so many cyphers necessary to express them ? These same signs are equivocal, obscure, insufficient : for example, they very seldom determine the nature of the intervals which they express, or what is worse, they denote those of another nature. We fix a bar to the one to mark the Diesis's, and to others, to mark the B mollare's. The major and superfluous intervals, and even the diminished, are often expressed in the same manner. When the cyphers are double, they are too confused, when single, they very seldom express more than the idea of one interval alone ; so that we have always a great number to understand and to determine. But how can we remedy these inconveniences ? Must it be necessary to increase the number of signs to express each part ? But the complaint is, that there are already too many. Should we reduce them ? In that case, we shall leave more things for the accompanist to guess at, who is already too much embarrassed ; and provided we go so far as to make use of cyphers, they should be of such a nature as to express every thing. What then is to be done ? Should we invent new signs, render the method of placing the finger more perfect, and from those signs, and that position of the finger, compose two united methods which combine in assisting the accompanist ? That is what Mons. Rameau has attempted with great sagacity, in his Dissertation on the different Methods of Accompanying. We will point out, under the words cypher and to finger, the means which he proposes. Let us pass on to the methods.

As the ancient music was not composed on the same plan as ours, neither for the song, nor its harmony, and as there was no other bass but the fundamental, the whole accompaniment consisted only in a series of perfect accords ; in the which, the accompanist substituted, from time to time, some sixth to the fifth, according as the ear required : they knew no farther. At present,



sent, since they have changed the modulations, overturned each separate party, furcharged, perhaps, spoiled, the harmony by a quantity of discords, we are obliged to pursue a different rule. Campion gave the preference, it is said, to the rule of the octave, (*Vide Rule of the OCTAVE*) and, according to this method, many masters still teach at present the accompaniment. The concords are determined by the rule of the octave, according to the rank which is held by the notes of the bass, and to the course which they follow in a given tone. Therefore the tone being known, the note of the bass continues known also. The rank of this note in the tone, the rank of the note that immediately precedes it, and the rank of the note that follows it, if accompanied by the rule of the octave, cannot lead us into any great error, provided that the composer has followed the most simple and most natural harmony; but that is what we ought rarely to expect in the present music, as hardly in Italy itself does the harmony appear to increase its simplicity, in proportion as it lessens it elsewhere. More than this, what method must we follow to have these things continually present? And whilst the accompanist is instructing himself, what becomes of the fingers? Hardly have we formed an idea of one Accord, but there presents itself another, and the instant of our reflection is precisely that of execution.

There is but one determined method in music, one reflected experience, i. e. the facility of reading a line of music in the cast of the eye, which can be of service at this time. And still the most skilful are often deceived with this assistance. What a number of faults escape them during the execution, even let the accompanist be ever so well experienced! Can we expect, even for the accompanist that the ear be formed, that the musician be able to read with ease and rapidity every kind of music, that he can, at the instant the book is opened, unravel a partition? And still, were this possible, we should want a motion of the fingers founded on different principles of accompaniment than those made use of until *Mons. Rameau*.

Zealous masters have very clearly seen the insufficiency of their rules. To supply the defect, they have had recourse to the enumeration and description of consonances, every dissonance of which is extended, accompanied, and prevented, in all its different cases. A prodigious detail! which the quantity of dissonances and of their combinations sufficiently evince, and with which the memory remains loaded.

Many advise the composition to be studied before we pass to the accompaniment, as if the accompaniment was not composition itself, except in regard to the invention, that more is necessary to the composer. It is as if it was proposed to begin to learn to read by making one's self an orator. On the contrary,

how many insist on beginning by the accompaniment to learn composition ! and this plan is certainly more reasonable and more natural.

The course of the bass, the rule of the octave, the method of extending and preventing the dissonances, composition itself in general, all this concurs to no other purpose, than to shew the succession of one accord to another ; so that in every accord there are fresh objects, new subjects for reflection ! What a continual labour ! When will the mind be sufficiently instructed, and when the ear sufficiently exercised, so that the fingers be no longer stopt ?

These are the difficulties which Mons. Rameau has proposed to remedy by his new cyphers, and by his new rules for accompaniment. I will endeavour to point out, in few words, the principles upon which his methods are founded.

In harmony there are but consonances and dissonances. Consequently there are only consonant accords and dissonant.

Each one of these accords is fundamentally divided by tierces or thirds (this is Mons. Rameau's system). The concinnous accord is composed of three notes, viz. ut, mi, sol, and the dissonant of four, viz. sol, si, re, fa, laying aside the supposition and suspension, which, in the place of those notes, whose removal is required, introduce others, as it were, by licence ; but the accompaniment bears never more than four. (Vide SUPPOSITION and SUSPENSION.)

Where concinnous accords succeed each other, where dissonant accords are followed by others dissonant also, and where the concinnous and the dissonant are intermixt.

Whereas the perfect concinnous accord agrees only to the tonic, the succession of concinnous accords furnishes so many tonics, and consequently an equal number of changes of the tone.

The dissonant accords succeed each other commonly in the same tone, if the sounds therein are not greatly varied. Dissonance unites together the harmonic sense, one accord thereof excites the desire of another.

If the tone be changed in this succession, this change is always denoted by a diesis, or a B mollare. In regard to the third succession, that is to say, the intermixture of consonant and dissonant accords, Mons. Rameau reduces it to two cases only, and he gives it as his opinion in general, that a consonant accord cannot be immediately preceded by any other dissonant accord, than that of the seventh of the dominant tonic, or that of the sixte quinte of the sous dominant, except in the broken cadence and the suspensions ; and farther he advances, that there are no exceptions in regard to the foundation. It appears evident to me, that a perfect accord may yet be preceded by the  
accord

accord of the diminished seventh, and even by that of the superfluous sixth, two original accords, the latter of which suffers no alteration.

Herein then we see three different textures of harmonic phrases. First, the tonics, which succeed each other, and form an equal number of new modulations. Secondly, the dissonances, which succeed each other ordinarily in the same tone. Thirdly, and lastly, the consonances and dissonances, which are intermixt, and where the consonance is, according to Monsi. Rameau, preceded by the seventh of the dominant, or by the sixte quinte of the sous dominant. What then remains to be done for the facility of the accompaniment, except to point out, to the accompanist, which it is of those textures that is predominant in whatever he accompanies. Moreover, this is what Monsi. Rameau would have executed by characters of his invention.

One sign alone can easily denote the tone, the tonic, and its accord. From thence is derived the knowledge of the diesis's and B mollare's, which must enter into the composition of accords from one tonic to another.

The fundamental succession by thirds, or by fifths, as well in rising as in descending, gives the first texture of harmonic phrases, entirely composed of consonant accords.

The fundamental succession by fifths, or by thirds, in descending, gives the second texture, composed of dissonant accords, that is to say, of accords of the seventh, and this succession gives a descending harmony.

The ascendant harmony is furnished by a succession of fifths in rising, or of fourths in descending, accompanied by a dissonance appropriated to this succession, which is la sixte ajoutee, or the sixth added, and this is the third texture of harmonic phrases. This last had not till this time been discovered by any one, not even by Monsi. Rameau, though he discovered the principle of it, in that cadence, which he called irregular. Therefore, by the ordinary rules, the harmony which arises from a succession of dissonances, always descends, although, according to the true principles, and according to reason, it ought to have, in its rise, a progression equally as regular, as in its descent.

The fundamental cadences give the fourth texture of harmonic cadences, where the consonances and dissonances are inter-united.

All these textures may be denoted by characters, simple, few in number, evident, which can at the same time point out, when it is necessary, the dissonance in general, for the nature of it is always determined by the texture itself. We must begin by exercising ourselves on these textures taken separately, then we must make them succeed each other on every tone, and on every mode successively.

With these precautions, Mons. Rameau pretends that we may learn more of accompaniment in six months, than could be learned before in six years, and he has experience on his side (*Vide CYPHERS*). In regard to the method of accompanying with intelligence, as it depends more from the use and taste, than from any rules which can be given, I shall content myself to make here some few general observations, of which no accompanist ought to be ignorant.

First, Although in the principles of Mons. Rameau, it is necessary to strike every sound of each accord, we must be very careful always to observe this rule literally. There are accords which would be insupportable with all this confusion. In the greatest part of dissonant accords, particularly in the accords by supposition, we must abstract some sound for the purpose of diminishing its duration. This sound is sometimes the seventh, sometimes the fifth: now and then, both the one and the other are cut off. We cut off also very often the fifth, or the octave of the bass in the dissonant accords, to avoid the octaves or fifths that follow, which may create an ill effect; particularly at the extremity of the piece. For the same reason, when the sensible note is in the bass, it is never placed in the accompaniment, and to supply its place, we double the third or the sixth, on the right hand. We ought also to avoid the intervals of the sixth, and to keep the two fingers joined, for that renders the dissonance very rough, which we ought to preserve for some occasions, where the expression requires it. In general, we ought to reflect, in accompanying, that when Mons. Rameau wishes every accord to be filled up, he has a greater attention to the mechanism of the fingers, and to his particular system of accompaniment, than to the purity of the harmony. Instead of that confused sound which is made by a like accompaniment, we should seek to render it agreeable and sonorous, and make it nourish and strengthen the bass, instead of concealing and stifling it.

If it should be asked how this abstraction of sounds can agree to the definition of the accompaniment by a complete harmony, I answer, that these abstractions are in reality but hypothetic, and only within the system of Mons. Rameau; that, according to nature, these accords, thus mutilated in appearance, are not less complete than the others; since the sounds which are supposed therein being cut off here, would render them disagreeable, and often insupportable; that in effect the dissonant accords are not at all fulfilled in the system of Mons. Partins, as in that of Mons. Rameau; that consequently the defective accords in the one are completed in the other; that in fine, a nice taste in the execution requiring that we abstract often from the general rule, and the accompaniment not being always the most agreeable, the  
definition

definition ought to fix the rule, and custom teach when we ought to differ from it.

Secondly, We ought always to proportionate the sound of the accompaniment to the character of the music, and to that of the instruments or voices which we are to accompany. Wherefore in a choir, we strike with the right hand the full accords, with the left we redouble the octave or the fifth, sometimes the whole accords.

We ought to follow the same plan in the Italian recitative, for the sounds of the bass not being maintained therein, should not make themselves understood, unless with their whole harmony, and for the purpose of recalling forcibly, and for a long duration of the idea of the modulation. On the contrary, in a slow and sweet air, when there is but a weak voice, or a single instrument for the accompaniment, we cut off the sounds, we slacken slowly, we touch the small key. In a word, attention should be always paid, lest the accompaniment, which is formed but to sustain and embellish the song, spoil, and entirely conceal it.

Thirdly, When we strike the same strings to prolong the sound in a long note, or in a session, let it be rather at the beginning of the measure, or the strong time, than at another moment. We ought not to repeat the stroke till we have well examined the measure. In the Italian recitative, how long a duration soever a note of the bass may contain, we should never strike it but once, and that forcibly with its whole accord. We restrike the accord only when it changes on the same note; but when an accompaniment of violin is attendant on the recitative, then we should sustain the bass and slacken its accord.

Fourthly, When we accompany vocal music, we ought, by the accompaniment, to sustain the voice, to guide it, give it its tone in all its takings in, and correct it whenever it is out of tune. The accompanist always having the cantata before his eyes, and the harmony present in his memory, is especially charged to be careful that the voice lose not itself in an error. (Vide ACCOMPANIST.)

Fifthly, We ought not to accompany in the same manner the Italian and French music. In the latter, we should sustain the sounds, sweeten them continually with grace in a gradual rise, always fill up the harmony as much as possible, play the bass with propriety, in a word, fall in with every thing that the nature of it requires. On the contrary, in accompanying the Italian music, we must simply strike, and withdraw the notes of the bass, make neither trills nor graces, but preserve in it that equal and simple course which appertains to it. The accompaniment ought to be full, bold, and without slackening, except the case, of which I have treated numero 3, and some takings in

in, or points d'orgue. We may therein, without scruple, diminish the sounds, but in that case, we must carefully choose those which are understood, for this purpose, that they may be founded in harmony, and be applicably adapted to the voice. The Italians hold it as their opinion, that nothing is heard in the accompaniment, or in the bass, which can abstract the ear for one moment from the air; and their accompaniments are always directed on this principle, that the pleasure and attention evaporate in a division of each.

Sixthly, Though the accompaniment of the organ be the same with that of the harpsichord, the taste of it is very different: as the sounds of the organ are sustained, the course of it ought to be more bounded and less changeable. We should raise the hand entire as little as possible, slide the fingers from one stop to another without removing those, which, in the place where they are fixt, may be necessary to the accord wherein we are interested. There is nothing so disagreeable as to hear grate on the organ, that kind of dry slackening accompaniment, which we are obliged to practice on the harpsichord. In general the organ, *that* instrument, so sonorous and majestic, has no association with any other, and makes but an ill effect in the accompaniment, if it is not, at the most, to strengthen the ripieno's and the choirs.

Monf. Rameau, in his Errors in Music, has lately established, or at least advanced, a new principle, for the omission of which, in my Encyclopedie, he censures me highly, i. e. that the accompaniment is a representation of the sonorous body. As I examine this principle in another writing, I shall dispense mentioning it in this article, which is already too long. My disputes with Monf. Rameau are the most useless circumstances in the world towards the advancement of art, and consequently towards the plan of this Dictionary.

ACCOMPANIMENT, Is moreover every part of the bass, or any other instrument, which is composed under an air, to render a harmony therein. On this method a solo of the violin is accompanied by the violincello, or harpsichord, and an accompaniment of the flute, is very well adapted to the voice. The harmony of the accompaniment is an addition to the agreements of the air, by rendering its sounds more sure, their effect more sweet, the modulation more sensible, and by conveying to the ear a testimony of justness which gives pleasure. In the same manner, in regard to the voice, there is a solid reason for its being always accompanied with some instrument, whether it be in part, or in unison, for though numbers that in singing the voice modifies itself naturally according to the laws of modification, (Vide MODIFICATION) however, experience teaches us, that the most just and best exercised voices have a great trouble  
in



in maintaining themselves any long time in the justness of the tone, when there is nothing to sustain them therein. By strength of singing we rise and fall insensibly, and it is very uncommon that we find ourselves exactly at the conclusion in the same tone from whence we set off. 'Tis for the purpose of preventing these variations, that the harmony of an instrument is employed. It maintains the voice in the same diapason, and when it loses itself, we recall it in an instant. The bass is, of all the parts, the most necessary for the accompaniment, being that which best sustains the voice, and gives a greater pleasure to the ear, because there are none whose vibrations are so strong, so determinant, or which leave a less equivocation in the judgment of fundamental harmony.

To ACCOMPANY, Is in general to play the parts of accompaniment, in the execution of a piece of music; or more particularly on a suitable instrument, to strike with each note of the bass the accords which it ought to bear, and which are called the accompaniment. I have sufficiently explained, in the precedent articles, in what consists this accompaniment; I will only add, that this word also points out to the accompanist in a concert, that he is employed only in an accessory part; that he ought but to be diligent in giving a greater weight to the parts of others; that the moment he has the least pretensions for himself, he spoils the execution, and tires out, at the same time, the musicians, and the audience. The more he thinks to make himself admired, the more ridiculous he appears; and as soon as, by the strength of his notes, or misplaced flourishes, he fixes on himself that attention due to the principal parts, whatever talents or execution he may display, he displays at the same time, his vanity and ill judgment. To accompany with merit and with applause, our only attention should be to sustain and give weight to the essential parts; and he executes very ingeniously his own, who causes its effect to be preserved, without permitting the part to be remarked.

ACOUSTIC, The doctrine or theory of sounds. (Vide SOUND) This word is from the invention of Mons. Sauveur, and is derived from the Greek *ακουω*, I hear. The acoustic is properly the theoretic part of music; 'tis that which gives, or ought to give, the causes for that pleasure which we receive from harmony and singing, which determines the references of the harmonic intervals, and which discovers the bearings and niceties of the vibrations in the chords. (Vide CHORD) Harmony acoustic is also sometimes used adjectively, we say the acoustic organ, an acoustic phenomenon, &c. &c.

ACT, That part of an opera which is separated from any other in representation by a space called interlude, or entr'acte. (Vide INTERLUDE) The unity of time and place should be

be observed with as much caution in the act of an opera, as in an entire tragedy of an ordinary kind, and even more so, in certain points; for the poet ought not to give to an act of the opera, a supposed duration longer than that which it really has, because we cannot suppose that what is transacted before our eyes takes up a greater duration than that which we see it demand in effect; but it depends on the musician to hasten or retard the action to a certain point, to encrease the natural resemblance or his interest, a liberty which obliges him to study well the gradation of theatrical passions, the time that is necessary for the extension of them, *that* wherein the progress is at its highest pitch, and *that* where it is incumbent on him to stop, to prevent the inattention, the languor, and drowsiness of the spectator. Neither is it permitted to change the scenery, and transport the theatre from one spot to another in the middle of an act, even in the *marvellous*, because such a transition is an opposition to reason and nature, and destroys the illusion, which it is the first foundation of the theatre to favour in every respect. When then the performance is interrupted by such changes, the musician can neither tell how he should be prepared for them, nor what he ought to do in his orchestra during their continuance, unless it be to represent the same chaos that then reigns within the scene.

Sometimes the first act of an opera has little reference to the principal action, and serves but as an introduction. In that case, it is called prologue (*Vide PROLOGUE*). As the prologue makes no part of the piece, it is never reckoned within the number of acts which it contains, which is commonly five in the French opera, but always three in the Italian. (*Vide OPERA.*)

**ACT OF CADENCE**, Is a movement in one of the parts, and chiefly in the bass, which obliges all the other parts to concur in forming a cadence, or in expressly avoiding it. (*Vide CADENCE.*)

**ACTOR**, A singer who plays a part in the representation of an opera. Besides all those qualities which he should possess in common with the dramatic player, he should have many particular ones to succeed in his art; for this reason, it is not sufficient that he has a fine voice for speaking, unless he has an equally good one for singing, for there is not such an union between the speaking and the singing voice, that the beauty of the one comprehends that of the other. Though we may forgive an actor the default of some one quality, which he flattered himself to be able to acquire, we cannot forgive him the audacity of destining himself for the stage, when destitute of the natural qualities which are therein necessary; as for example, the voice in a singer. But by this word voice, I understand more the extent, justness, and flexibility, than the strength of the brain. It is



with that the Theatre, whose plan is to touch the heart by singing, should be forbid to those rough roaring voices which but stun the ear; and that, how little voice soever an actor may possess, if it be just, striking, easy, and sufficiently dilated, he has every thing necessary; for he will very easily make himself understood, if he can gain the attention of his hearers. With a suitable voice, the actor should be attentive to improve it by art; and though his voice may not require it, he will himself want it to catch, and render with nicety, the musical parts of his speeches. Nothing is more insupportable and disgusting, than to see a hero, in the most lively transports of his passion, constrained and retarded in his part, straining and imitating a school-boy, who blunders in his talk, shewing, instead of the opposition between Love and Virtue, *that* of a bad singer between the Measure and the Orchestra; and more dubious on the tone of his voice, than on the side which he ought to take. There is neither warmth nor grace without ease, and that actor who labours in his part, will afford neither the one or the other.

It is not sufficient that the actor in an opera be an excellent singer, unless he is an ingenious mimic; for he ought not only to cause what he speaks to be felt, but also what he leaves to be spoken by the symphony. The orchestra does not deliver a sentiment, but what should arise from *his* soul; his steps, his eyes, his gesture, all should incessantly agree with the music, and even without his appearing to notice it. He ought always to interest, even when he is silent; and tho' busied in a difficult part, if he forgets one instant the personage, to pay attention to the singer, he is but a musician on the stage, he is no longer actor. Many a one has excelled in every other particular, who has got himself hissed for neglecting *this*. There is no actor to whom, in this respect, we may not give the celebrated Chassé as a model. This excellent mimic, always placing his art above him, and constraining himself to excel in it, by that means placed himself very much above his companions. Inimitable actor and excellent man! He will leave the admiration and regret of his talents to the lovers of his theatre, and an honourable memory of himself to every honest man.

ACUTE, Is so said of a sound piercing, or elevated through reference to some other sound. (Vide SOUND.)

In this sense, the word Acute, is opposed to the word flat. The more the vibrations of the corpo sonoro are numerous, the more the sound is acute. The sounds considered under the references of acutes and flats, are the subject of harmony. (Vide HARMONY. CONCORD.)

ADAGIO, This word, written at the beginning of an air, denotes the second, from slow to quick, of the five principal degrees of  
C movement,

movement, distinguished in the Italian music. (Vide MOVEMENT.) Adagio is an Italian adverb, which signifies a l'Aise, or gradually; and it is also by this Method, that we should strike the measure of those airs to which it is applied. The word Adagio is sometimes used substantively, and is applied metaphorically to those pieces of music whose movement it determines. Other words of a like nature are similarly used. So we say, an Adagio of Partini, an Andante of Martino, and an Allegro of Locarelli, &c.

ADQUISITA, This was in the Greek music that chord or sound which they called Proflambanomenos. (Vide this Word.)

A sixte ajoutée, or a sixth ad quisita, is a sixth added to a perfect accord, and whose name, an accord thus augmented, ordinarily takes. (Vide CONCORD and SIXTH.)

AFFETUOSO, An adjective taken as an adverb.

This word, written at the beginning of an air, denotes a movement, something between the Andante and the Andagio, and in the character of the air itself, an expression affecting and sweet.

AGOGE, One of the sub-divisions of the ancient Melopœia, which gives the rules for the course of an air by degrees alternatively, conjoint or disjoint, whether in arising or descending, (Vide MELOPŒIA.) Martianus Capella gives, after Aristides Quintilian, to the word Agogé another sense, which I shall treat of under the word Tirata.

AIR, A piece of music which is adapted to the words of a song, or of a piece of poetry proper for singing; and in an extensive sense, the song itself is called Air. In the opera, the name of Air is given to all the measured chants, to distinguish them from the recitative; and in general, every complete piece of vocal and instrumental music which forms a Tune, is called Air, whether this composition makes of itself an entire piece, or that it can be detached from *that* whole, of which it is a part, and executed separately.

If the subject or air be divided into two parts, it is called Duo, or Duet; if into three, Trio.

Saumaïse imagines, that this word comes from the Latin æra; Baretti is of his opinion: tho' Menage opposes them in his Etymologies of the French language.

The Romans had *their* signs for the rhyme, in the same manner as the Greeks had theirs, and these signs, drawn also from their Characters, were not only called numerus, but æra; that is to say, number, or the marks of the number, numeri nota, says Nominus Marcellus. 'Tis in this sense that the word æra is found used in this verse of Lucilius,

Hæc est ratio: Perversa æra! Summa subducta improbé!  
And Sextus Rufus uses it in the same manner.

Moreover,

Moreover, though this word was originally taken only for the number or measure of the chant, in the end it was made use of in the same manner as in the word *numerus*; and *æra* was used to denote the song itself; from whence is derived, according to the two authors I have cited, the French word *Air*, and the Italian *Aria* taken in the same sense.

The Greeks had a number of different airs, which they called *Nomes*: the *nomes* had each their character and their use, and many were appropriated to some particular instrument, almost the same thing as what we now call pieces or sonatas.

Modern music has divers kinds of airs, each of which has reference to some sort of dance, whose name these airs generally bear. (Vide *MINUET*, &c. &c.) The airs of our operas are (if I may use the expression) the canvas or foundation, on which the paintings of imitative music are coloured. The melody is the design, the harmony the colouring,—all the picturesque objects of nature's beauty, all the reflected sentiments of the human heart, are the models which are imitated by the artist. Attention, interest, the charms of the ear, and the emotion of the heart, are the result of these imitations. (Vide *IMITATION*) An ingenious and agreeable air, an air composed with taste and discovered genius, is the chef d'œuvre of music. 'Tis *there*, that a fine voice dilates itself, that a noble symphony shines with lustre; 'tis *there*, that the passion insensibly strikes the soul by the sense. After a fine air we are satisfied, the ear desires nothing more. It rests in our imagination, we convey it away with us, we repeat it at our pleasure. Without being able to render a single note, we preserve it in our minds as we heard it in the performance; we view the scene, the actor, the theatre; we hear the accompaniment and the applause. A true lover of music never loses the fine airs which he has heard during life, but makes the opera re-commence whenever he chooses. The words of airs do not always follow in a regular suit, neither are they spoken as those of the recitative, tho' they are generally short, they divide, they are repeated, and are extended to such a length as it pleases the composer; they do not form a part of the narration, but paint, either a picture, which must be seen from different points of sight, or a sentiment, in the which the heart is interested, and from which it cannot (to use the expression) detach itself; and the different variations of the air, are but so many methods of viewing the same image. 'Tis for this reason that the subject should be one and the same; 'tis by these well understood repetitions, by these redoubled strokes, that an expression, that at first might escape your notice, in fine agitates you, and transports you from yourself; and it is still through the same principle that the shakes, which in pathetic airs seem so misplaced,

placed, are not so always: the heart, impressed with a very lively sentiment, often expresses it more feelingly by inarticulate sounds than by words.

The form of airs is of two kinds: the lesser airs are often composed of two divisions, each of which is sung twice; but the greater airs of the opera are more frequently in Rondeau's. (Vide RONDEAU.)

AL SEGNO, or DA CAPO, These words written at the end of an air, denote, that the first part must be re-commenced, not entirely at the beginning, but at that place where the return is marked.

ALLA BREVE, An Italian term, which denotes a kind of measure of two times very quick, and which however is marked with a ronde or semibreve per tempo. It is no longer made use of in Italy, and only in church-music. It answers almost to what they call in France the Gros-fa.

ALLA ZOPPA, An Italian term, which makes a constrained movement, syncopating between two times, without syncopating between two measures, which gives to the notes an irregular, and, as it were, a lame direction. 'Tis a notice also, that this same course continues to the end of the air.

ALLEGRO, adjective taken adverbly.

This Italian word written at the beginning of an air, denotes, from quick to slow, the second of the five principal degrees of movement, distinguished in the Italian music. Allegro signifies lively, and it is also the indication of a lively movement, the most so of any after presto. But we must not think, on that account, that this movement is proper for gay subjects only; it is often applicable to transports of passion, distraction, or despair, which partake of nothing less than of gaiety. The diminutive Allegretto denotes a more moderated gaiety, and a little less vivacity in the measure. (Vide MOVEMENT)

ALLEMANDE, A kind of air or piece of music, the measure of which is a quatre temps, and is struck with a flat. It appears by its name, that this kind of air first came from Germany, tho' they know not the least of it in that country. The Allemande in a sonata is quite obsolete, and the musicians very rarely make use of it at present; those also who still employ it, give it a far more lively movement.

ALLEMANDE, Is also the air of a dance very common in Switzerland and Germany. This air, as well as the dance, has much gaiety, it is played a deux temps.

ALTUS. (Vide HAUTE CONTRE)

AMBITUS, Is a name which was formerly given to the extent of every tone or mode from flat to sharp; for tho' the extent of a mode was in some respects fixed to two octaves, there were irregular modes, the Ambitus of which exceeded this extent, and others imperfect, where it did not reach it.

In the plain chant, this word is again used, but the Ambitus of perfect modes is only of one octave therein; those that exceed it, are called superfluous modes; those that do not reach it, diminished modes. (Vide *MODES*)

AMOROSO. (Vide *TENDERLY*)

ANACAMPTOS, A term of the Greek Music, which signifies a collection of retrograde notes, or of notes proceeding from the sharp to the flat. 'Tis the contrary to Euthia. One of the parts of the ancient melopoëia had also the name of Anacamp-tosa. (Vide *MELOPOEIA*)

ANDANTE, This word written at the beginning of an air, denotes, from slow to quick, the third of the five principal degrees of movement, distinguished in the Italian music. Andante is the participle of the Italian verb, Andare, to go. It denotes a movement marked, without being gay, and answers very nearly to that which is described by the word Gracieusement. (Vide *MOVEMENT*)

The diminutive Andantino denotes a little less gaiety in the measure, which must be particularly observed, as the word Larghetto signifies exactly the contrary. (Vide *LARGO*)

ANTIPHONA, Is a kind of chant made use of in the catholic church.

The Antiphonæ were so named, because in their origin they were sung with two chorusses, which answered each other alternately; and the psalms and hymns sung in the church were comprehended under this name. Ignatius, disciple of the apostles, was, according to Socrates, the inventor of this method of singing amongst the Greeks; and Ambrosius introduced it into the latin church: Theodore attributes the Invention to Diodorus and Flavian.

At present, the signification of this term is confined to certain short passages drawn from scripture, which are applicable to the feast which is celebrating, and which preceding the psalms and cantics, direct their intonation: the name of Antiphona is also preserved in some hymns sung in honour of the Virgin, such as Regina Cœli, Salve Regina.

ANTIPHONY, A name which the Greeks gave to that kind of symphony, which was performed by divers voices, or by different instruments to the octave or double octave, in opposition to that which was executed in single unison, and which they called Homophony. (Vide *SYMPHONY*)

This word is derived from *Ἀντί* contra and *φωνή* vox, as if one were to say an opposition of the voice.

ANTIPHONARY, A book which contains in notes the Antiphony and other chants, which are used in the catholic church.

APOTHETUS, A kind of name applicable to the flutes in the ancient music of the Greeks.

APOTOME,

**APO TOME**, That which remains of a tone major, after that a limma has been abstracted, which is an interval, less by a comma, than the semitone major, consequently the Apotome is greater by a comma than the middle semitone. (Vide **COMMA**, **SEMITONE**.) The Greeks, who knew perfectly well that the tone major cannot, by reasonable divisions, be divided into two equal parts, divided it unequally by many methods. (Vide **INTERVAL** )

From one of these divisions, invented by Pythagoras, or rather by Philolaus, his scholar, resulted the diesis or limma on one side, and the Apotome on the other, the standard of which is from 2048 to 2187. The derivation of this Apotome is found at the *Septieme Quinte*, ut Diesis, beginning by ut Natural, for the quantity by which this ut Diesis surpasses the ut Natural drawn nearest, is precisely the reference which I have just observed.

The ancients gave also the same name to other intervals. They called Apotome major a little Interval, which *Monf. Rameau* calls the inharmonic *Quart de ton*, the which is formed of two sounds in the standard of 125 to 128.

And they called minor Apotome, the interval of two sounds, whose distinction was from 2025 to 2048, an interval still less sensible to the ear than the preceding.

*Jean de Muris* and his contemporaries give the name of Apotome chiefly to the minor semitone, and that of diesis to the semitone major.

**APYCNI**, plural, The ancients called by this name in their scale, three of eight solid sounds of their system or diagramma, the which touched not on any side the compact intervals, that is, to the *proslambanomenos*, the note *fynnemenon*, and the note *hyperboleon*,

They called also *Apycnos*, or not crowded, the diatonic genus, because in the tetrachords of that genus the sum of the two first intervals was greater than the third. (Vide **CROUDED**, **GENUS**, **SOUND**, **TETRACHORD**)

**ARBITRIO**. (Vide **CADENZA**)

**ARCO**, A Bow, These Italian Words *Con l'Arco*, denote, that after having slipped off the chords, we must replace the bow to the part where they are written.

**ARIETTA**, This diminutive, derived from the Italian, signifies properly a little air; but the sense of this word is altered in France, and the name of *Arietta's* is given to greater pieces of music, of a movement generally rather gay, which are sung with accompaniments and symphony, and which are commonly in *rondeau*. (Vide **AIR**, **RONDEAU**)

**ARIOSO**, This Italian word at the beginning of an air, denotes a kind of singing well sustained, open, and appropriated to the greater airs.

**ARISTOXENIANS**



**ARISTOXENIANS**, A sect that had for their chief Aristoxenes, of Tarentum, Scholar of Aristotle, and which was repugnant to the Pythagoreans, in regard to the measure of intervals, and on the method of determining the references of the sounds; so that the Aristoxenians made application solely to the judgment of the ear, and the Pythagoreans to the precision of calculations. (Vide **PYTHAGOREANS**)

**ARPEGGIO**, The method of causing the different sounds of an accord to be heard successively and rapidly, instead of striking them all at a time. There are instruments on which there cannot be formed a full accord but thro' the Arpeggio. Such are the violin, the violincello, the viol, and all those which are played with the bow; for the convexity of the bridge hinders the bow from fixing itself at once on all the strings. For the formation then of accords on these instruments, we are obliged to use the Arpeggio, and as we cannot draw more sounds than there are strings, the Arpeggio of the violincello, or of the violin, cannot be composed of more than four sounds. In the Arpeggio each of the fingers must be arranged on its chord, and the Arpeggio must be drawn from a single and forcible stroke of the bow or fiddle-stick, which must begin strongly on the largest string, and conclude by turning and softening on the lesser gradually. If the fingers were only arranged successively on the strings, or that many strokes of the fiddle-stick were given, it would no longer be Arpeggio, but only a very quick passage on several notes in continuance.

What is done on the violin thro' necessity, is practised by taste on the harpsichord. As we can only draw from that instrument sounds of a short continuance, we are obliged to re-strike them in notes of a long duration. To make an accord of a longer duration, we strike by the Arpeggio, beginning with the lower sounds, and remarking, that the fingers which have first struck quit not their stroke until all the Arpeggio be finished, for the purpose of hearing at once every sound of the accord. (Vide **ACCOMPANIMENT**)

Arpeggio is an Italian word, which is Frenchified into that of Arpege. It is derived from the word Arpa, because 'tis from the playing of the harp that we have taken the idea of the Arpeggio.

**ARSIS** and **THESIS**, Terms of music and prosody.—These two words are Greek. Arsis comes from the verb ἀίρω tollo, I raise, and denotes the elevation of the voice or of the hand: the falling which follows this elevation, is what is called θέσις depositio. Remissio.

In regard then to the measure, per arsin, signifies in raising, or continuing the highest time; per thesin, in lowering, or continuing

tinuing the lowest time : in which case we ought to take notice, that our method of marking the measure is very different from that of the ancients, for we strike the highest time and elevate the lowest. To remove every equivocal term, we may say, that Arsis signifies the bold and strong time ; and Thesis, the fainter and weak. (Vide MEASURE, TIME, to BEAT TIME.)

In regard to the voice, we say that a chant, a counterpoint, a fugue, are *per thesin*, when the notes rise from flat to sharp ; *per arsin* when they descend from sharp to flat. Fugue *per arsin* and *thesin*, is what is now called counter fugue, in the which the answer is made in a contrary sense, that is to say, in descending if the guida has risen, and in rising if the guida has descended. (Vide FUGUE.)

ASSAI, An augmentative adverb, which is often found joined to the word which denotes the movement of an air : wherefore *presto assai*, *largo assai*, signify very quick, very slow. The Abbé Brasseur has made out of this word one of his ordinary double senses, by substituting, instead of its true and only meaning, that of an ingenious mediocrity of slowness and quickness. He believed, that *Assai* signified *assez*, i. e. enough : for which reason we ought to admire the singular fancy that this author had of preferring in his vocabulary, to his mother-tongue, a foreign language which he understood nothing of.

AUBADE, A nightly concert in the open air, under the windows of a house. (Vide SERENADE.)

AUTHENTIC, When the octave is found harmonically divided, as in this proportion, 6, 4, 3, that is to say, when the fifth is in the flat, and the fourth in sharp, the mode or tone is called Authentic, except in regard to the tone plagal, where the octave is arithmetically divided, as in this proportion, 4, 3, 2, which fixes the fourth in flat, and the fifth in sharp.

To this explanation, adopted by all the authors, but which is to no purpose, I will add the following : the reader may take his choice. When the finale of a chant is also its tonic, and the chant does not descend so far as to the Dominant au dessous, the tone is called authentic ; but if the chant descends or concludes at the dominant, the tone is plagal. I here take the words tonic and dominant in their musical acceptation. These differences of authentic and plagal are observed but in the plain chant, whether the finale be placed at the bottom of the diapason, which makes the tone authentic, or whether we place it in the middle, which makes it plagal, provided that on the whole, the modulation be regular. Modern music admits all the chants as equally authentic, in whatever place of the diapason the finale may chance to fall. (Vide MODE.) There are



are in the eight tones of the Roman church four *authentic*, to wit, the first, the third, the fifth, and the seventh. (Vide TONES of the CHURCH) Formerly, the name of *authentic fugue* was given to that whose subject proceeded in a gradual rise, but that Denomination is no longer in use.

---

## B.

**B** FA SI, or B FA B MI, or simply B, The name of the seventh found of the gamut of Aretin, for the which the Italians and other Europeans repeat the B, saying B MI, when it is natural; B FA, when it is a B Flat; but the French call it SI. (Vide SI.)

B FLAT, Character of music, to which is given nearly the figure of a **b**, and which lessens the note to which it is join'd by a semitone minor. (Vide SEMITONE.)

Guy d'Arezzo, having formerly given names to fix of the sounds of the octave, from the which he composed his celebrated Hexacord, left the seventh without any other name than that of the letter B, which is proper to it, as the C to ut, and the D to re, &c. Moreover this B was sung in two methods, that is to say, in a tone below la, according to the natural order of the gamut, or only in a semitone of the same la, when they wished to unite the tetrachords, for at that time they knew nothing of our modes or modern tones. In the first case, the sounding very roughly, on account of the three consecutive tones, it was judged that it caused to the ear an effect similar to that which angulated and hard bodies cause to the hand, for which reason it was called B hard, or B sharp, in Italian B quadro. In the second case, on the contrary, it was found that the si was extremely soft, therefore they called it B flat. By the same analogy it might have also been called B round, and effectually the Italians called it often B rondo.

There are two methods of making use of the B flat, the one accidental, when in the course of an air it is placed on the left of a note. This note is almost always the sensible note in the major tones, and sometimes the sixth in the minor tones, when the cleff is not correctly numbered. The accidental B flat changes only the note which it touches, and those which immediately answer to it, or at the most, those, which, in the same bar or measure, are found on the same degree, without any contrary sign.

The other method is to employ the B flat in the cleff, and in that case it modifies it, it acts in the whole course of the air, and upon all the notes placed upon the same degree, unless this B flat be accidentally destroyed by some diesis or B sharp, or that the cleff undergoes some change.

The position of the B flat on the cleff is by no means arbitrary; herein lies the reason: it is intended to change the place of the semitones of the scale; moreover, those two semitones ought always to preserve between them prescribed intervals, i. e. that of a fourth on one side, and of a fifth on the other. Wherefore the note *mi*, inferior to its semitone, makes in the flat the fifth of *fi*, which is its homologue in the other semitone; and in the sharp, the fourth of the same *fi*, and the note *fi*, reciprocally make in the flat the fourth of *mi*, and in the sharp, the fifth of the same *mi*. If then, as in example, leaving out the natural *fi*, a B flat was given to *mi*, the semitone would change its place, and be found a degree lower, between the *re* and the *mi* B flat. Moreover, in this position, we see that the two semitones would no longer preserve the prescribed distance between each other; for the *re*, which would be the inferior note of the one, would make in the flat the sixth of *fi*, its homologue in the other, and in the sharp, the third of the same *fi*; and this *fi* would make in the flat the third of *re*, and in the sharp, the sixth of the same *re*. Wherefore the two semitones would be placed too near on the one side, and too great a distance on the other.

The order of B's flat ought not then to begin by *mi*, nor by any other note of the octave but *fi*, the only one which has not the same inconvenience; for as much as the semitone changes its place therein, and ceasing to be between the *fi* and the *ut*, descends between the *fi* B flat, and the *la*, still the prescribed order is not demolished. The *la*, in this new arrangement, being found on one side at the fourth, and on the other at the fifth of *mi*, its homologue, and *that* reciprocally.

The same reason which fixes the first B flat on the *fi*, fixes the second on the *mi*, and so in continuance, in ascending a fourth, or descending a fifth as far as *sol*, at which is commonly made a stop, because the B flat of *ut*, which will be found hereafter, differs not from the *fi* in practice. That causes then a collection of five B flat's in this order.

1.	2.	3.	4.	5.
Si.	Mi.	La.	Re.	Sol.

By the same reason also, we cannot use the latter B's flat in the cleff, without using also those which precede them; wherefore the B flat of *mi*, is never placed but with that of *fi*, and that of *la*, but with the two preceding, and each of the following, but with all those which precede it.

In

In the article cleff may be found a *Formula*, to know immediately if a tone or a mode given, ought to bear B's flat within the cleff, and how many.

B SHARP, A character of music which is written thus,  $\sharp$ ; and which, being placed on the left of the note, denotes that *that* note, having been precedently elevated by a diesis, or lowered by a B flat, ought to be replaced in its natural and diatonic elevation.

The B sharp was invented by Guy d'Arezzo. This author, who gave names to the six first notes of the octave, left none but the letter B to express the natural si: For every note had, at that time, its correspondent letter; and as the diatonic chant of this si is rough, when we ascend to it from the fa, he called it simply B dur, or hard, B quarré, by an allusion which I have mentioned in the preceding article.

The B sharp served in the end to destroy the effect of the anterior B flat, on the note which followed the B sharp, that is, that the B flat being generally placed on the si, the B sharp which followed directly after, by destroying this B flat, produced only its natural effect, which was to represent the note si without alteration. In the end, it was used for extension, and in default of another sign, to destroy also the effect of the diesis; and 'tis in this manner that it is employed till this time. The B sharp effaces equally the B flat, or the diesis, which have preceded it.

There is, however, a distinction to be made. If the diesis or the B flat were accidental, they are destroyed without return by the B sharp, in all the notes which follow it immediately or immediately on the same degree, until there presents itself a new B flat or a new diesis. But if the B flat or the diesis are on the cleff, the B sharp effaces them only for the note which it immediately precedes, or at the most, for all those which follow in the same measure and on the same degree; and in every note changed at the cleff, whose alteration we wish to destroy, so many new B sharp's are necessary. All this is very poorly understood, but such is the custom.

Some have given another sense to B sharp, and granting it only the right of effacing the accidental diesis's or B flat's, deny it that of changing any thing in the state of the cleff; so that, in this sense, on a fa diesis'd, or a si marked with B flat on the cleff, the B sharp would serve but to destroy an accidental diesis on this si, or a B flat on this fa, and would always signify the fa diesis, or the si B flat, just as it is on the cleff.

Others also made use of the B sharp to efface the B flat, and even that of the cleff, but never to efface the diesis. 'Tis the B flat only which they employ in this last case.

The first custom has entirely prevailed; the latter become more uncommon, and are abolished day by day; but it is necessary to give attention to it in the reading of ancient music, without which we should often be deceived.

BALLET, A theatrical action which is represented by the dance directed by the music: This word is derived from the old French *Baller*, to dance, to sing, to amuse one's self. The music of a ballet ought to have still more cadence and accent than that of the vocal, because it is changed to express a greater number of things; and 'tis in it alone to inspire the dancer with the warmth and expression that the singer may receive from the words; and what is still more, it must supply, in the language of the soul and of the passions, every thing that the dance cannot express to the eyes of the spectators.

Ballet is also the name that is given in France to a confused kind of opera, wherein the dance is not in the least better regulated than in the rest, and causes no better effect. In the greatest part of these operas, the acts form so many different subjects, united together only by some general systems, foreign to the action, and which the spectator could never perceive, had not the author given him a hint in the prologue. These ballets contain other ballets, which are generally called *Fêtes*. They are a collection of dances which succeed each other without plot, without an union in themselves, or with the principal action, and where the best dancers inform you of nothing but that they dance well. This conduct, so little theatrical, suffices for a ball, where every actor satisfies his desire, provided that he amuses himself, and where the interest which the spectator takes in the personages, dispenses with an attention to things; but such a deficiency in subjects and union, should never be suffered on the stage, not even in the representation of a ball, where the whole ought to be united together by some secret action, which awakens the attention, and interests the spectator. This plan in composition is not without example, even in the French opera; and there may be seen a very agreeable proof of it in the *Fêtes Venetiennes*.

In general every dance that describes itself alone, and every ballet, which is only a ball, should be banished entirely from the lyric theatre. In short, the action of the scene is always the representation of another action, and what we see therein, is but the image of what strikes our ideas; so that it ought not to be this, or that dancer, who presents himself before you, but the character itself which he represents. Therefore, altho' a private dance represents nothing more than itself, *that* of the theatre should necessarily be the imitation of something else, as well as the actor, who, in his character, represents a person in discourse,  
and

and the scenes which exhibit a different place from that wherein they stand.

The worst kind of ballets, is that which treats of allegorical subjects, and wherein, in consequence, there is but imitation on imitation. The whole art of these sorts of dramas consists, in representing under sensible images, a reference purely intellectual, and in making the spectator reflect on things quite different from those he sees, as if, instead of drawing his attention to the scene, it were a merit to divert it from its objects. These kinds of ballets, besides, demand so great an ingenuity in the dialogue, that the musician rambles, as it were, in an unknown country, between the points, the allusions, and epigrams, whilst the spectator does not forget himself for an instant. According to such a proceeding, there will never be any thing but the sentiment which can introduce this on the stage, and identify it with the actors; every thing that is only intellectual bears it away to the piece, and restores it to itself. As a proof, we see that those persons, who wish to place the most wit in the theatre, are the very men that least regard the illusion. What then can the musician do in those dramas which pay no respect or value to his art? If music expresses but sentiments or images, how can it render ideas purely metaphysic, such as allegories, where the mind is incessantly employed with the reference which the objects which are presented to it, bear to those which it must recollect in itself?

Would the composers but reflect on the true principles of their art, they would use greater caution in the dramas which they receive, as well as more truth in the expression of their subjects; and when the words of an opera will but give some ideas, the music will soon be taught to speak.

BARCAROLLES, A kind of songs in the Venetian language which are sung by the Gondoliers in Venice. Though the airs of these Barcarolles are chiefly formed for the people, and often composed by the Gondoliers themselves; they have so great a melody, and so pleasing an accent, that there is no musician in Italy but piques himself on knowing and singing them. The liberty that the Gondoliers have of visiting all the theatres gratis, gives them an opportunity of forming the ear and taste without any Expence, so that they compose and sing their airs, as persons, who, though conversant in the niceties of music, will not vary the simple and natural disposition of their Barcarolles. The words of these songs are generally more than natural, like the conversation of those who sing them; but those who are delighted with the faithful picture of a people's manners, and who, besides, love the Venetian dialect, are easily led into a fondness for them, seduced by the beauty of the airs, so that many curiosos have very large collections of their pieces.

We cannot in conscience omit remarking, to the glory of Tasso, that the greatest part of the Gondoliers can recite by heart, the chief part of his *Jerusalem Delivered*; that many know it entirely, and spend the nights in their boats, singing it alternately from one vessel to another, that it is assuredly a most inimitable *Barcarolle*. Homer alone had the honour before himself of being thus celebrated, and no other epic poem has since met with any similar renown.

**BARDS**, A kind of men, very singular, and to this time much respected among the Gauls, which were at the same time prophets, poets, and musicians. Bochart derives the word from Parat, to sing; and Camden agrees with Festus, that Bard signifies a singer, in the Celtic language, *BARP*.

**BARIPYCNI**, The ancients called by this term, five of the eight sounds, or stable chords of their system, or diagram, that is to say, the Hypaté-Hypaton, the Hypaté-Meson, the Mese, the paramese, and the Neté, Diazeugmenon. (Vide *PYCNI*. *TETRACHORD*.)

**BARITONO**, A kind of note between tenor and bass. (Vide *CONCORDANT*.)

**BAROQUE**, A Baroque, or rough music, is that, whose harmony is confused, filled with modulations and dissonances, its notes hard and unnatural, the intonation difficult, and the movement constrained.

It appears evidently that this term must be derived from the Baroco of the logicians.

**BARRE**, C Barré, A kind of measure. (Vide *C*.)

**BARS**, Lines drawn perpendicularly at the end of each measure, on the five lines of the scale, to separate the measure which finishes from that which begins. For which reason, those notes contained between two bars, always form a complete measure, equal in quantity and duration to each of the other measures comprised between two other bars, provided the movement does not change; but as there are many sorts of measures which greatly differ in their duration, the same differences are perceived in the quantities contained between two bars of each of these kinds of measures. So in the great triple which is marked by

this sign  $\overset{2}{\text{—}}$  and which is struck deliberately, the sum of the

notes comprised between two bars ought to make a circular note

and a half, and in the small triple  $\overset{3}{\text{—}}$  which is struck quick, the

two Bars inclose only three crotchets, or their quantity; so that eight times the quantity contained between the two bars  
of



of this last measure, composes only once the quantity contained between two bars of the other.

The chief service of bars is to distinguish the measures, and to express their time, which is always fixed on that note which immediately follows the bar. They are also used in partitions to denote the correspondent measures within each division. (Vide PARTITION.)

Some hundred years ago, a plan was laid down for drawing bars from measure to measure: The music before-hand was simple. There was nothing seen therein but rounds, minims, and black notes, few crotchets, and hardly ever double crotchets. As the divisions were more equal, the measure was more easy to be followed. However, I have seen some of our best musicians embarrassed to execute the ancient music of Orlando and Claudin. They were lost in the measures, thro' an omission of those bars, to which they had been accustomed, and followed, with difficulty, such parts as had been formerly sung with rapidity by the musicians of Henry III. and Charles IX.

BASS, That of the four parts of music which is below the rest, the lowest of all, whence is derived its appellation of bass. (Vide PARTITION.)

The bass is the most necessary of all the parts, 'tis on that the whole of harmony is established; and 'tis a general maxim among musicians, that when the bass is good, the harmony is rarely contrary.

There are a great number of different kinds of the bass, viz. The *Fundamental Bass*, which we shall treat of in the following article.

The *Continued, or Thorough Bass*, so called because it lasts throughout the whole piece: its chief use, omitting that of directing the harmony, is to sustain the voice, and preserve the tone. It is believed, that it was one Lodovico Viana, one of whose treatises is extant, who, about the beginning of the last century, first brought it into use.

The *Figured Bass*, which in lieu of a single note, divides its quantity in several other notes under the same concord. (Vide FIGURED HARMONY.)

The *Constrained Bass*, whose air or subject, bounded to a small number of measures, as four or eight, begins afresh incessantly, whilst the superior parts pursue their air and harmony, and vary them by different methods. This bass belongs originally to the couplets of the chacon, a kind of tune, but at present it is no longer used. The constrained bass descending diatonically, or chromatically, and with slowness from the tonic, or from the dominant, is admirable for pathetic pieces. Those frequent and periodical returns touch insensibly the soul, and inspire it with a disposition of languor and melancholy. Examples may be seen  
in

in several scenes of the French opera. But tho' these kinds of the bass have a good effect to the ear, it is seldom the same in regard to the airs that they are adapted to, which generally constitute only a simple accompaniment. Beside the rough and ill conducted modulations, which can be scarcely avoided, these airs varied in a thousand methods, and still monotonous, produce a confusion by no means harmonious; and as they have but little music in themselves, the parts above are greatly detained thro' the constraint of the bass.

The *Singing Bass*, is that kind of voice which sings the part of the bass. There are the bass recitative, and the bass in chorus; concordants, or bass tenor, which have their place between the tenor and the bass; bass's distinguished properly by that name alone, to which custom has given the name of bass tenor; and lastly, counter bass, the most so of all the notes which sing the bass below the bass itself, and which we must not confound with a kind of instrument that bears a similar name.

FUNDAMENTAL BASS, Is that which is formed only from the fundamental sounds of harmony, so that below every concord it gives the true fundamental sound of that concord, i. e. the sound from whence it is derived by the laws of harmony. Wherein we see that the fundamental bass can have no other texture than that of a regular and fundamental succession; without which, the order of the superior parts would be discordant. To understand this well, it must be premised, that according to the system of Mons. Rameau, which I have conformed to in this work, every concord, tho' formed of several sounds, has but one fundamental to it, that is to say, that which has produced this concord, and which serves as a bass to it, in direct and natural order. Moreover, the bass which reigns under all the other parts, does not always express the fundamental sounds of the concords; for amongst all the sounds that form a concord, the composer may appropriate to the bass whichever he thinks preferable, with a view to the order of this bass, to the beauty of his air, and above all, to the expression, as I shall explain it in the future pages. In this case, the true fundamental sound, instead of being in its natural place, which is the bass, is transported into the other parts, or perhaps is not expressed at all; and *such* a concord is stiled a subverted concord. In its foundation, a subverted concord differs not from the direct accord which has produced it, for they are still the same sounds, but these sounds forming a different combination, all those combinations have been long taken for so many different fundamental concords, and they have received different names, which may be seen under the word Concord; and which have continued to distinguish them, as if the difference of names could produce any variation in their nature.

Mons.



Monf. Rameau has fhewn in his Treatife of Harmony, and M. d'Alembert, in his Elements of Mufic, has given a ftill clearer evidence, that many of thefe pretended concords were only the fubverfions of a fingle one. . So, the concord of the fixth is only a perfect concord, whole third is transported to the bafs; in conveying to it the fifth, we fhall have the concord of the fixth fourth. Herein then we fee three combinations of a concord which has but three founds; thofe which have four are capable of four combinations, as every found may be conveyed to the bafs. But by introducing, under this, another bafs, which under all the combinations of the fame concord, prevents us always a fundamental found; it is evident, that the number of confonant concords is reduced to a third, and the number of diffonant to a fourth. Add to that, all the concords by fuppoftion which are ftill reduced to the fame fundamentals, and you will find the harmony fimplified to a degree that one could not have expected, confidering the confufed ftate in which its rules were founded before the time of M. Rameau. It is certainly, as that author obferves, an aftonifhing thing that it has been poffible the practice of that art to be carried to the height to which it has arrived without knowing its foundation, and that we have found exactly every rule, without being able to difcover the principles from whence it is derived.

After having fhewn what is the fundamental bafs under the accords, let us now fpeak of its direction, and of the method by which it unites the concords together. The precepts of art on this head, may be reduced to the fix following rules.

I. The fundamental bafs fhould never found any other notes than thofe of the Gamut of that tone, in which we are employed, or of that thro' which we intend to pafs. This is the firft and moft indifpenfible of all its rules.

II. In the fecond place, its courfe fhould be fo fubmitted to the laws of modulation, that it fhould never fuffer the idea of a note to be loft, but in taking up that of another, that is to fay, the fundamental bafs fhould never wander, or fuffer the tone which is before us, to be forgot an instant.

III. In the third place, it is fubjected to the union of concords, and to the preparation of diffonances, a preparation which, as I will fhew, is only one of the cafes of union, and which, confequently, is never neceffary when the union can exift without it. (Vide UNION, to PREPARE.)

IV. By the fourth rule it ought, after every diffonance, to follow the progreff, which is prefcribed to it thro' the neceffity of preferving it.

V. By the fifth, which is only a fummery of the precedent, the fundamental bafs ought only to move in confonant intervals; as it is only in a cafe of broken cadence, or after a concord of

the diminished seventh, that it ascends diatonically. Every other movement of the fundamental bass is erroneous.

VI. Finally, by the sixth, the fundamental bass or harmony, should undergo no syncope, but should denote the measure and time by a well cadenced change of concords; for the purpose that the dissonances, which ought to be prepared, should be so on a weak time, but particularly that all the stops should be found on a strong time. This sixth rule meets with a great number of exceptions, but the composer should still be attentive to it if he wishes to form a piece, wherein the movement may be well pointed, and whose measure may fall with grace.

Wherever these rules are observed, the harmony will be regular, and without error, which will not however prevent the music from being displeasing. (Vide COMPOSITION.)

One word of discussion on the fifth rule will not be by any means useless. Let the fundamental bass be shifted as we please, if it be well formed, we shall find therein but these two things, either perfect concords or consonant movements, without which these concords could have no union, or dissonant accords in the acts of cadence; in every other case, the dissonance can neither be well placed, or well preserved.

Thence it follows, that the fundamental bass can have no regular course, but by one of these three methods. 1st. To ascend or descend from a third or sixth. 2dly. From a fourth or fifth. 3dly. To ascend diatonically to the method of the dissonance, which forms the union, or by courlery, on a perfect concord. In regard to the diatonic descent, it is a plan entirely abolished in the fundamental bass, or at the most tolerated in case of two consecutive perfect concords, separated by a stop express or understood therein. This rule has no other exception; and 'tis thro' not having discovered the true foundation of certain passages, that M. Rameau has made the fundamental bass descend diatonically on the concords of the seventh, which cannot be suffered in a complete harmony. (Vide CADENCE, DISSONANCE.)

The fundamental bass, which is added only as a proof of harmony, is cut off in the execution, and often it would form a very ill effect; for it is according to M. Rameau, for the judgment and not the ear:—It would at least produce a very disgusting monotony by the frequent returns of the same concord, which is disguised and varied more agreeably in a combination, by different methods on the thorough bass, without reckoning that the different revolutions of harmony furnish a thousand methods of adding fresh beauties to the air, and a new energy to the expression. (Vide CONCORD.)

If the fundamental bass does not serve for the composition of good music, if even it ought to be retrenched in the execution,

I shall be asked in what particular it is of service? I answer, that in the first place it serves as a rule for scholars to learn the methods of forming a regular harmony, and giving to every part the diatonic and elementary course which is prescribed to them by this fundamental bass. It serves, secondly, as I have already said, to discover if an harmony already composed be good and regular; for every harmony which cannot be submitted to a fundamental bass, is regularly incorrect. It is of use lastly, to find a thorough bass under a given air; although, in fact, he who is not able to compose directly a thorough bass, will not be superior in the composition of a fundamental; and much less will he know the art of transforming this fundamental bass into a good thorough bass. Herein then lie the principal rules that M. Rameau lays down for the discovering the fundamental bass in a given air.

I. To be certain of the tone or mode by which the air is begun, and of all those thro' which we pass. There are also rules for this discovery of the tone, but so long, so vague, and incomplete, that the ear is formed a long time before the rules are learned; and the fool, who would endeavour to make use of them, will only gain the habit of proceeding note by note, without ever knowing where he is.

II. To try successively on each note the principal chords of the tone, beginning by the most analogous, and continuing to the most distant, if we lie under that necessity.

III. To be attentive if the chosen chord can time with the inferior parts in what precedes, and what follows, by a good fundamental succession; and when that cannot be done, to return to our former plan.

IV. Never to vary the note of the fundamental bass till we have exhausted all the consequent notes of the parts below, which can enter into its accord, or till some syncopating note in the air, may receive two or more notes of the bass, to prepare the preserved dissonances in a regular continuance.

V. To study well the inter-union of phrases, the possible succession of cadences, whether full, whether avoided, and particularly the stops which come generally every four or two measures, for the purpose of making them always fall on perfect or on irregular cadences.

VI. Lastly, to observe all the foregoing rules for the composition of the fundamental bass. Here then, are the chief observations to be made for finding one under a given air, for there are often several to be found; but whatever may be said, if the air has accent and character, there is one fundamental bass only which we can adapt to it.

After having given a clear summary of the method of composing a fundamental bass, there would remain also to shew the

method of transforming it into a thorough bass; and that would be easy, if it were necessary to look only at the diatonic course, and the pleasing notes of this bass; but let us not think, that the bass, which is the guide and support of harmony, the soul, and, to use the expression, the interpreter of the air, is confined to rules so simple. There are others which arise from a more sure and radical principle, a principle ingenious, tho' concealed, which has been felt by all the artists of genius, without having been ever unravelled by any one. I think I have hit on the bud of it in my Letter on the French Music: I have have spoken sufficiently for those who comprehend me:—I shall never explain it clearly to those who do not. (Vide through the whole, UNITY of MELODY.)

I make no mention here of the ingenious System of Mons. Serre, of Geneva, or of his double fundamental bass, because the principles, which he had examined with a sagacity worthy of praise, have been since exposed to view, by Mons. Tartins, in a work, which I will treat of before the conclusion of the present. (Vide SYSTEM.)

BEATING, A particularity or grace in the French airs, which consists in elevating and striking a quaver, on a note instantaneously begun. There is this difference between the cadence and the beating, that the cadence begins by the note superior to that whereon it is marked, after which we strike alternately the superior note, and the true one, whereas the beating begins by the sound itself of the note that bears it, after which we strike alternatively *that* note, and that which is above it, *E, G*: these tones of the throat, *mi, re, mi, re, mi, re, ut, ut*, are a cadence; and the following *re, mi, re, mi, re, mi, re, ut, re, mi*, are a beating.

BEATINGS, in the plural, Whenever two strong and well sustained notes, like those of the organ, are harsh and dissonant together, on the approach of a consonant interval, they form, by more or less frequent shakes, an irregularity of sound which impresses on the ear, an effect nearly similar to the beating of the pulse on the hand, for which reason, Mons. Sauveur has given them also the term of beatings: these strokes become so much the more frequent, as the interval draws nearer to justness, and whenever they reach it, they are confounded with the vibrations of the sound.

Mons. Serre pretends, in his Essay on the principles of Harmony, that these beatings, produced through the concurrence of two sounds, are only an acoustic appearance, occasioned by the vibrations of their two sounds. These beatings, according to him, have equally a place when the interval is consonant, but the rapidity, in which they are then counfounded, not suffering them to be distinguished by the ear, there ought to follow, not  
an

an absolute cessation of the strokes, but an appearance of a flat and thorough sound, a kind of less perceptible humming, such an one precisely as results in the proofs cited by Monsr. Serre, and since expanded by Monsr. Tartins, from the concurrence of two sharp and consonant sounds, (under the word system may be seen, that the dissonances also produce them). “What is very certain,” continues Monsr. Serre, “is, that their beatings, their co-incident vibrations, which are followed with more or less rapidity, are exactly similar in measure to the vibrations, which the fundamental sound would really produce, if, thro’ means of a third corpo sonoro, it was actually made to resound.”

This very specious explanation is not perhaps without its difficulties; for the connection of two sounds is never more composed than when it approaches to the simplicity which produces from it a consonance; and the vibrations ought never to coincide more rarely than when they reach almost to an isochronism; from whence it must follow, in my opinion, that the Beatings ought to slacken, in proportion as they become more quick, then in an instant reunite, in the moment that the concord is just.

The observation of the beatings is an excellent rule to be consulted on the best system of modification. (Vide MODIFICATION) For it is evident, that amongst all possible modifications, *that* which leaves the fewest beatings in the organ, is most pleasing to nature and the ear. Moreover, it is a constant and well-known circumstance among organists, that the changes of thirds major, produce beatings more forcible and more disagreeable than those of the Fifths. In this case nature herself has chosen.

**BATTERY**, The method of striking and repeating successively on different strings of an instrument, the various sounds which compose a concord, and of passing in this manner from concord to concord by the same variation of notes. This battery is but a continued arpeggio, but the whole of its notes are detached instead of being conjoined as in the arpeggio.

**BEATER OF TIME**, One whose office is in beating time in a concert. (Vide the following Article.)

**TO BEAT TIME**, Is to specify the variety of time, by motions of the hand or foot, which denote its duration, and by which all similar measures are rendered exactly equal in their chronical powers or time in the execution. There are measures which are struck by one time only, others by two, three, or four, which is the greatest number of times specified, that can be contained within a measure. A four tim’d measure also can always be divided into two measures of two times each. In all their different measures, the beaten time is always on the note

which immediately follows the bar: the raised time is always that which precedes, unless it happens that the measure contains but one time, and even in that case we must always suppose a weaker time, since we cannot beat without having raised.

The degrees of slowness or of quickness which are given to measure, depend on many circumstances. 1st, From the powers of the notes which compose the measure, we may very plainly see, that a measure which contains a circle, viz.  $\bigcirc$ , should be struck more forcibly, and have a longer duration than that which contains a crotchet, viz.  $\text{f}$  2dly, From the movement expressed by the French or Italian word, which is often placed at the beginning, *Gai, Vite, Lent, &c.* All these words denote an equal number of modulations in the movement of a similar kind of measure. 3dly and lastly, From the character of the air itself, which, if well executed, will necessarily strike us with its true movement.

The French musicians beat time differently from the Italians. The one, in a four timed measure, strikes the two first successively, and raises the others. They strike also the two first in a three tim'd measure, and raise the third. The French strike the first time only, and specify the others by different motions of the hand on the right, and left. However, the French music would be in want of a well-marked measure, much more than the Italian, for it does not convey its cadence within itself; its movements have no natural precision: the measure is extended or diminished at the option of the finger. How greatly are our ears disgusted at the French opera with the disagreeable and continual noise, which is made by the strokes of him who beats the time, and who has been ingeniously compared to a wood-cutter felling a tree! But 'tis an inevitable evil. Without that noise the measure could not be felt. The music itself does not express it. On which account foreigners can perceive no movements in the French airs. If we pay attention to this, we shall find, that herein lies one of the specific differences between the French and Italian music. In Italy, the measure is the whole spirit of the music; 'tis a well expressed measure, which gives it that accent which renders it so delightful. 'Tis the measure also which directs the musician in the execution. In France, on the contrary, 'tis the musician who directs the measure: He enervates and disfigures it without hesitation or scruple. But what am I saying? The excellence of taste itself consists in not suffering it to be perceived; a precaution of which (into the bargain) it stands in no great need. The opera of Paris is the only European theatre where the measure is struck without being followed. In every other part they follow it without beating.

There



There reigns herein a general error, which a little reflection will easily abolish. It is imagined, that a hearer beats the time of an air which he hears, only because he feels it forcibly; and 'tis, on the contrary, because it is not sufficiently sensible, or that he does not well enter into its spirit, that he endeavours, by the addition of motions of the hand or foot to make amends for what is wanting in this particular to the ear. As little as a piece of music regards its cadence, we may see the generality of the French, in attending to it, make a thousand contortions, and an inconceivable jargon to assist the measure in its course, and the ear, in feeling it. Substitute Italians or Germans in their place, you will not perceive the least noise, or see the most minute gesture that has any connection with the measure. Is it, possibly, that the Germans and Italians were less sensible of the measure than the French? There are several of my readers who would not in the least scruple in saying so; but would they also advance, that the most ingenious musicians are those who enter least into the spirit of the music. It is incontestable that they are those who *beat* the least, and when, by dint of exercise, they have gained the habit of always feeling it, they do not *beat* at all: this is a proof of experience that may be seen daily throughout the world. It may be said also, that the same persons, whom I accuse of beating time only thro' an insufficient feeling, do not beat in the airs where it is not to be felt; and I answer, that in that case 'tis because they do not feel it at all. The ear must be struck at least with some kind of connection with the measure, that instinct may endeavour to strengthen it.

The ancients, says Mons. Burette, beat time in many different methods. The most general consisted in the motion of the foot, which was raised from the ground, and struck it alternately, according to the measure of the two equal or unequal times (Vide RHYME.) This was commonly the office of the music-master, who was called *Κορυφαῖος*, because he was situated in the midst of the choir of musicians, and in an elevated situation, that he might be more easily seen and heard by all the company. These time beaters were called in Greek *ποδάκτυποι* and *ποδοψόφοι*, on account of the noise of their feet *συτρονάριοι*, on account of the uniformity of their gestures, and, if I may be allowed the expression, of the monotony of the rhyme, which they always beat *à deux tems*. They were called in Latin *pedarii*, *podarii*, *pedicularii*. They beat time not only with the foot, but also with the right hand, and conjoined all the fingers to strike within the hollow of the left, and he who expressed the harmony in this manner, was called *Manuductor*. Beside this, beating of hands and noise of slippers, the ancients had still, for striking

striking the time, that of cockell-shells, oyfter-shells, and the small bones of animals, which they struck against one another, as we at present perform with castanets and other similar instruments. All this so disagreeable and superfluous noise among us, on account of the equality of the measure, was not the same in those times, where the frequent changes of feet and rhyme required a concord much more difficult, and gave to the noise itself a variety much more harmonious, and more striking. We may moreover say, that the custom of beating in this manner was introduced only in case the harmony should become languishing, and should lose its accent and energy. The higher we rise, the fewer examples we find of these beaters of time, and in music of the remotest antiquity, we cannot discover any.

**TO BAWL**, Is to exert the voice in singing in such a manner, as that the sounds can be no longer divisible, and have a greater resemblance to cries than singing. The French music must be bawled: 'tis in that that its most forcible expression consists.

**BI**, A syllable which several foreign musicians used formerly for the pronounciation of the sound of the gamut, which is called by the French *fi*. (Vide *SI*.)

**BISCHROMA**, An Italian word which expresses triple crotchets. Whenever this word is written under a collection of notes, equal, and of a greater power than the triple crotchets, it denotes, that the powers of those notes should be divided into triple crotchets, according to the real division which is generally found in the first time. 'Tis an invention of authors adopted by imitators, particularly in the partitions, to spare pains and paper. (Vide *CROTCHET*.)

**BOREE**, A kind of air, appropriated to the dance which goes under the same name as that which is generally supposed to take its origin from Auvergne, and which is still in use in that province. The boree has two lively times, and begins with a crotchet before it is struck. It should have, as the generality of dances, two parts and four measures, or a multiple of four to each. In these kinds of airs we frequently join the latter half of the first time to the former of the second by a syncopated minium.

**BOUTADE**, An ancient kind of lesser ballet, which was executed, or appeared to be, impromptu. The musicians have sometimes given this name to pieces or ideas which they executed in the same manner on their instruments, and which are otherwise stiled caprices or fantasies. (Vide those words.)

**TO BRAWL**, Is to outdo the natural extent of the voice, and sing with all our possible violence, as the church-wardens in the villages of Lutrin, and several musicians elsewhere.

**BRAWL**,

**BRAWL**, A kind of dance very lively, which is performed in a circle, with a short tune in rondeau, that is to say, with the same conclusion at the end of every couplet.

**BREF**, An adverb which we often find in ancient music, written above the note which concludes a phrase or an air, to denote that this finale should be lessened by a quick and short sound, instead of preserving its entire force. (Vide **TO CLIP**.) This word is however useless, as we have a sign which may express it.

**BREVE**, A note which passes with double the quickness of the preceding; for which reason the crotchet is short after a pricked minum, and the quaver after a pricked crotchet. We could not call a note that is equal to the half of the preceding a breve, wherefore a crotchet is not breve after a simple minum, nor a quaver after a crotchet, unless we make use of a syncope.

In church music it is quite different. To answer exactly to the quantity of syllables, the breve is equal to the half of a long syllable. Moreover, a long note has often a tail to distinguish it from a short, which never has any, which circumstance is a direct opposition to music, where the round which has no tail, is the double of the minum which has one. (Vide **MEASURE**, **POWERS of the NOTES**.)

**BREVE**, Is also a name which our ancient musicians gave, and the Italian still give to that old kind of note that we express by the term *quarrée*. There were two sorts of Breve's, for instance, the true and perfect, which is divided into three equal parts, and is equal to three rounds, or semi-breves in triple measure; and the changed or imperfect breve, which we divide into two equal parts, and which is equal to two semi-breves only in a double measure. This last kind of breve, is that which is marked by the sign of **C** barré, and the Italians call still by the name of *alla breve*, the measure of two quick times, which they make use of in pieces of music, *da Capella*. (Vide **ALLA BREVE**.)

**BUZZING**, A thorough bass which is always continuing in the same sound, as are those generally from the instruments which we call Bag-pipes.

**BUCOLIASM**, An ancient rustic song. (Vide **SONG**.)

**C** This letter, in our ancient music, was the sign of the minor imperfect extent, from whence the same letter has continued among us, as that of a four timed measure, which includes exactly an equal power of notes. (Vide *MODE*.)

**C BARRE**, The sign of a quick four timed measure, or a set two timed. It is marked by a perpendicular line which

passes from the top to the bottom of the C within the staff, thus **C**.

**C SOL UT**, **C SOL FA UT**, or simply **C**, A character or term of music, which indicates the first Note of the gamut, which we call ut, (Vide *GAMUT*.) It is also the ancient sign of one of the three keys of music. (Vide *CLEFF*.)

**CACOPHONY**, A discordant unison of several ill chosen, or disagreeing sounds.—This word is derived from *κακος*, ill, and *φωνη*, a sound. For which reason it is called cacaphony by the generality of musicians in an improper pronunciation.

**CADENCE**, The termination of an harmonic phrase, either on a stop, or a perfect concord, or, to speak in a more extensive sense, it is every passage from a dissonant accord to any other whatsoever, for we can never remove from a dissonant accord but by an act of cadence. Moreover, as every harmonic phrase is by necessity conjoined by dissonances expressed or understood, it follows, that harmony in general is properly a collection of cadences only.

That which we call act of cadence, takes its origin always from two fundamental sounds, one of which denotes the cadence, and the other its termination.

As there can be no dissonance without a cadence, neither can there be any cadence without its dissonance expressed or understood; for to give expression to a stop, something anterior must suspend it, and this something can be nothing, unless a dissonance, or the implicit sentiment of that dissonance: were it otherwise, the two concords, being equally perfect, we might make a pause on the first; the second would not discover itself, and therefore must become unnecessary. The concord formed on the first sound of a cadence, should, consequently, be always dissonant, that is to say, should sustain or suppose a dissonance.

In regard to the second, it may be consonant or dissonant, just as we chuse, either to preserve or to elude the stops. If it be consonant, the cadence is full; if dissonant, the cadence is avoided or imitated.

We generally reckon four kinds of cadences, that is to say, perfect cadence, imperfect or irregular cadence, cadence interrupted, and broken cadence. These are the denominations which

Mons. Rameau has given to them, and the reasons whereof shall be seen hereafter.

I. Whensoever after a concord of the seventh, the fundamental bass descends from the fifth on a perfect concord, 'tis a full perfect cadence, which proceeds always from a dominant tonic to a tonic; but if the perfect cadence be avoided by a dissonance added to the second note, we may begin a second cadence; in avoiding the first on that second note, avoid this second cadence, and begin a third on the third note; then go on in the same plan as far as we please, by ascending from the fourth, or descending from the fifth on all the chords of the tune, and this forms a succession of avoided perfect cadences. In this succession, which is without a doubt, the most harmonious, two parts, viz. those which form the seventh and the fifth descend on the third and eighth of the following concord, whereas the two other parts, viz. those which form the third and eighth, remain to compose in their turn, the seventh and the fifth, and descend immediately in an alternate direction with the two others. In this manner such a succession promotes a descendant harmony. It should never stop but on a dominant tonic, to fall immediately on the tonic by a full cadence.

*Perfect Cadences avoided.*



II. If the fundamental bass, instead of descending from the fifth after a concord of the seventh, descends only on the third, the cadence is called interrupted. This can never be full, but it must necessarily fall out, that the second note of this cadence sustains another dissonant accord. We may in the same manner continue to descend from the third, or ascend from the sixth, by concords of the seventh, which makes a second succession of avoided cadences, but much less perfect than the preceding, for the seventh, which unites with the third in the perfect cadence, unites

unites here with the eighth, whence proceeds a lesser harmony, and which makes also two eighths to be understood, so that to avoid them, we must either remove the dissonance or destroy the harmony.

Whereas the interrupted cadence can never be full, it follows thence that a phrase can never be concluded by it, but we must have recourse to the perfect cadence to make the concord dominant be understood.

*Interrupted Cadences avoided.*



The interrupted cadence forms also, by its succession, a descendant harmony, but there is one sound only which descends. The three others remain in order to descend, each in its turn, in a similar direction.

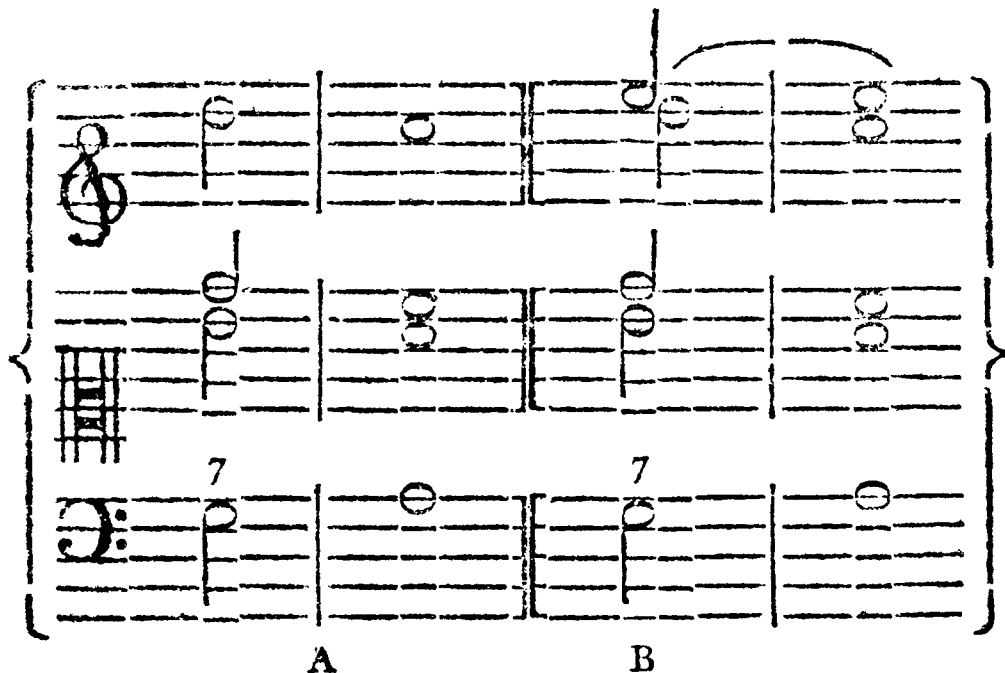
There are some who erroneously mistake an overthrow of the perfect cadence for an interrupted cadence, wherein the bass, after a concord of the seventh, descends from the third, sustaining a concord of the sixth, but every one must see that such a course, not being fundamental, can by no means constitute a cadence proper to it.

III. Broken cadence is that wherein the fundamental bass, instead of ascending from the fourth after a concord of the seventh, as in the perfect cadence, ascends only a degree. This cadence is ofteneft avoided by a seventh on the second note. It is certain that it cannot be rendered full but by licence, for in such a case there is necessarily a want of unison.

*Broken*



*Broken Cadence,  
Full with a Tie A.  
Avoided with a Tie B.*



A succession of broken cadences avoided is still descendant. Three sounds therein descend, the eighth remains alone to prepare the dissonance ; but such a succession is rough, badly modulated, and is seldom put in practice.

IV. When the Bass descends by an interval of the fifth, from the dominant on the tonic, it is, as I have said, an act of perfect cadence. If, on the contrary, the bass ascends by a fifth from the tonic to the dominant, 'tis an act of irregular and imperfect cadence. To discover it, we add to the concord of the tonic a sixth major, whence this concord takes the name of sixth added. (Vide CONCORD.) This sixth, which forms a dissonance on the fifth, is also healed as a dissonance on the fundamental bass, and, as such, obliged to extend itself by ascending diatonically on the third of the following concord.

The imperfect cadence forms almost an absolute opposition to the perfect cadence. In the first concord of each we divide the fourth, which is placed between the Fifth and the eighth, by a dissonance, which forms therein a new third, and this dissonance ought to be reduced on the following concord; therein lies what these two cadences have in common with each other, but hereafter the contrariety which they maintain.

In the perfect cadence, the sound which is added fixes itself at the top of the interval of the fourth, near to the eighth, forming a third before the fifth, and produces a dissonance minor, which is avoided by descending; whereas the fundamental bass ascends from the fourth, or descends from the fifth of the dominant to the tonic, to maintain a perfect pause. In the imperfect cadence, the sound which is added is fixed at the bottom of the interval of the fourth, near to the fifth, and forming a third

with the eighth, it produces a major dissonance, which is avoided by ascending; whereas the fundamental bass descends from the fourth, or ascends from the fifth of the tonic to the dominant, to establish an imperfect pause.—Mons. Rameau, who first made mention of this cadence, and who admits many exceptions from it, forbids us in his *Treatise on Harmony*, page 117, to admit that wherein the added sound is in the flat, sustaining a concord of the seventh, and that, with a very weak argument, which I have made mention of under the word concord. He has taken this concord of the seventh as fundamental, so that we must preserve a seventh by another seventh, a dissonance by an equal dissonance, by a similar movement on the fundamental bass. If such a method of treating the dissonances could be suffered, we had as well shut our ears, and throw our rules into the flames. But the harmony, under which this author has placed so strange a fundamental bass, is clearly overthrown by an imperfect cadence, avoided by a seventh added upon the second note.

*Reversion of the Sixth added.*

*B. F. from M. Rameau.* *The true B. F.*

And this is so true, that the thorough bass, which strikes the dissonance, is necessarily obliged to ascend diatonically to preserve it, without which the passage could be of no avail. I confess, that in the same work, page 272, Mons. Rameau gives a similar example with the fundamental bass; and since he disapproves in formal terms, the overthrow which results from this bass, such a passage serves only to discover, in his book, one contradiction more. And as much as this same author, in a future work (*Gener. Harmon*, page 186) seems to recollect the true origin of this passage; he speaks of it so obscurely, and says again so positively, that one seventh is preserved by another, that we may see clearly, that he only takes therein a comparative view, and that at the bottom his sentiments remain the same, so that we have the privilege of retorting against him the reproach

reproach which he confers on Maffon, not to have known how to see the imperfect cadence in one of his perversions.

This same imperfect cadence extends itself also from the sub-dominant to the tonic. We may also avoid it, and give it, by this method, a succession of several notes, whose concords will compose an ascendant harmony, in the which the sixth and eighth ascend on the third and fifth of the concord, whereas the third and fifth remain to form the eighth and prepare the sixth.

No author that I know of, before Mons. Rameau, has spoken of this harmonic rise, himself has only given us a view of it; and it is certain, that we could neither practise a long continuance of similar cadences, on account of the major sixths which would remove the modulation, nor even fill the whole of its harmony without a precaution.

After having laid open the rules and constitution of the different cadences, let us take a view of the reasons which Mons. D'Alembert gives, from Mons. Rameau, of their denominations.

The perfect cadence consists in a course of the fifth, by descending; and, on the contrary, the imperfect consists in a course of the fifth in ascending. Herein lies the reason: When I say *ut sol*, *sol* is already enclosed within *ut*, since every sound, as *ut*, carries its twelfth with it, the fifth of which, viz. *sol*, is the eighth; so when we go from *ut* to *sol*, 'tis the generating sound which passes to its product, in such a manner though, that the ear always wishes to return to this first generator; on the contrary, when we say *sol ut*, 'tis the product which returns to its generator, the ear is satisfied, and wishes nothing more. Moreover in this course, *sol ut*, the *sol* makes itself again understood in *ut*; by this means the ear hears at once the generator and its product, whereas, in the course *ut sol*, the ear, which in the first sound had heard *ut* and *sol*, hears nothing more in the second than *sol* without *ut*. Wherefore the stop or cadence from *sol* to *ut*, has a greater perfection than the cadence or stop, from *ut* to *sol*.

It seems, continues Mons. D'Alembert, that in the principles of Mons. Rameau, we may furthermore explain the effect of the broken cadence, and the interrupted. Let us suppose, for this purpose, that after a concord of the seventh, *sol, si, re, fa*, we ascend diatonically, by a broken cadence to the concord *la, ut, mi, sol*: It is visible that this concord is destroyed by the concord of the sub-dominant, *ut, mi, sol, la*; wherefore, the course of broken cadence is equivocal to this succession, *sol, si, re, fa, ut, mi, sol, la*, which is nothing different from a perfect cadence, in the which *ut* instead of being used as tonic is rendered sub-dominant,

dominant. Every tonic, says *Monf. D'Alembert*, can always be rendered sub-dominant by changing its mode. I will add, that it can even bear the concord of a sixth added, without undergoing any change.

In regard to the interrupted cadence, which consists in descending from one dominant on another by the interval of the third in this method, *fol, fi, re, fa,—mi, fol, fi, re*, it seems, that we may still explain it. In effect, the second concord, *mi, fol, fi, re*, is overthrown by the concord of the sub-dominant, *fol, fi, re, mi*; for which reason the interrupted cadence is equivocal to this succession, *fol, fi, re, fa,—fol, fi, re, mi*, where the note *fol*, after having been used as dominant, is rendered sub-dominant by changing the mode, which is permitted, and left to the option of the composer.

These explanations are ingenious, and shew what use we may make of the double employ in those passages, which seem to have the least connection with it. However, the intention of *Monf. D'Alembert*, is not surely that we should make use of them in reality in these passages for practice, but only for the comprehension of the changes. For instance, the double employ of the interrupted cadence would prevent the dissonance *fa*, by the dissonance *mi*, which is contrary to rules, to the utility of rules, and particularly to the judgment of the ear; for in the sensation of the second concord, *fol, fi, re, mi*, at the continuance of the first *fol, fi, re, fa*, the ear is more attached towards the removal of the *re*, than to admit the *mi* as dissonant. Beginners, in general, should be acquainted, that the double employ may be admitted on a concord of the seventh, in the continuance of a consonant accord; but that as soon as the concord of the seventh follows one similar to itself, the double employ can have no admission. It is necessary that they know also that the tone ought not to be changed by any other dissonant accord than the sensible; whence it follows, that in the broken cadence we cannot suppose any variation of tone.

There is another kind of cadence which the musicians do not look upon as such, and which, according to its definition, is, however, a true one: 'Tis the passage of the concord of the seventh diminished on the sensible note, to the concord of the tonic. In this passage, there is found no harmonic union, and it is the second example of this default, in what is called cadence. One might regard the harmonious transitions as methods of avoiding this same cadence, in the same manner as we avoid the perfect cadence of a dominant to its tonic, by a chromatic transition, but I confine myself here to the explanation of established denominations only.

CADENCE,

**CADENCE**, Is, in terms of singing, that motion of the throat which the Italians call *trillo*, and which we call warbling; which is generally on the last note but one of a musical phrase, from whence it has, doubtless, taken the name of Cadence. We say, "That actress has a fine cadence." "Such a singer strikes the cadence ill."

There are two kinds of cadences. The one is the full cadence, which consists in not beginning the warbling of the voice, until we have rested on the higher note: The other is called broken cadence, and in that we begin the trill of the voice without any preparation.

The **CADENCE**, Is a quality of good music, which gives to those who execute it, or who listen to it, a lively feeling of the measure, so that they remark it, and perceive it fall justly, without reflecting on it, as it were thro' instinct. This quality is particularly requisite in the airs for dancing. "This minuet has an agreeable Cadence." "That chacon wants a cadence." The cadence being, in that sense a quality, is generally preceded by the definite article *the*, whereas the harmonic cadence bears, as individual, the numerical article, viz. A perfect *cadence*.—*Three cadences avoided.*

Cadence signifies also the conformity of the dancer's steps, with the measure, expressed by the instrument. He goes out of *cadence*, or tune.---He keeps well the *cadence* or time. For this reason, the music master denotes the movement of the minuet, by beating time, at the beginning of each measure; whereas the dancing master beats time only every two measures, because so much is requisite to form the four steps of the minuet.

**CADENCED**, A well cadenced music is that wherein the cadence is most sensible, wherein the rhyme and harmony most perfectly concur in giving life, as it were, to the movement; for the choice of concords is by no means indifferent to denote the time and measure; and we ought not to practise indifferently the same harmony on the stroke and its rise. Neither is it sufficient to divide the measures into equal powers, to make their equal returns be felt, since the rhyme does not depend less from the accent which is given to the melody, than from the powers which are given to the notes, for we may have times very equal, and yet very ill cadenced: 'Tis not sufficient that there be an equality, but it must be of such a nature as to be felt.

**CADENZA**, An Italian word, by which we denote a point d'orgue, or sign of a pause, not written, and which the author leaves to the will of him who performs the principle part, for the purpose of his making, relatively to the character of the air, the passage most suitable to his voice, his instrument, or his taste.

This sign of a pause is called *Cadenza*, because it is generally made on the first note of a final cadence; and it is also called *arbitrio*, on account of the liberty which we learn therein to the performer to suit his own ideas, and follow his particular taste. The French music, particularly the vocal, which is extremely strict, leaves no similar liberty to the finger, which, were it so, he would with difficulty know how to use.

The *CANARIES*, A kind of gigue, the air of which is even of a more lively movement than that of the ordinary gigue, for which reason, it is sometimes marked by  $\frac{1}{16}$ : This dance is at present no longer in use. (Vide *GIGUE*.)

*CANEVAS*, It is by this name that, in the opera of Paris, those words are called, which the musician adjusts to the notes of an air, as a parody. From these words, which have no signification, the poet adjusts others, which express little more, wherein in general we find no more ingenuity than sense, where the French prosody is infamously murdered, and which are therefore with great reason stiled

*CANON*, This was, in the ancient music, a rule or method to determine the reference and connection of intervals. They gave also the name of Canon to the instrument, by which they discovered these connections, and Ptolemy has given this same name to the book which we have of his on the reference of all the harmonic intervals. They called in general the division of the monochord by all these intervals, *textis canonis*, and the monochord, thus divided, or the Table which represented it, *Canon universalis*. (Vide *MONOCHORD*.)

*CANON*, In modern music, is a kind of fugue, which is called perpetual, because the parts succeeding each other, continually repeat the self-same air.

Formerly, says Zarlino, there were placed at the head of the perpetual fugues, which he calls *Fughe in conseguenza*, certain notes which directed the method of singing those kinds of fugues, and these directions, being properly the rules of these fugues, were called *Canoni-Rules*---*Canons*---From thence, taking the title for the thing, that kind of fugue, by Metonymy, has been stiled canon.

The canons, easiest to be made, and most general, fix them at the unison, or at the 8th; that is to say, that every part repeats, on the same tone, the air of that which precedes it. For the composition of this kind of canon, we have only to chuse an air to our liking; add thereto a partition, as many parts as we please with equal notes, then, from all these parts sung in succession, to form a single air; using our endeavours that this succession may produce a something completely agreeable, whether it be in the harmony, or in the canto.



To execute a single canon, he, who is to sing the first, begins alone, singing the air throughout, and then again beginning it without interrupting the measure. As soon as he has finished the first couplet, which ought to serve as a continual subject, and on which the whole of the canon has been composed, the second enters, and begins this same first couplet, whilst he who entered first continues the second: The others pursue the same plan successively, as soon as he who precedes them is at the end of the first couplet; in re-beginning after this method, continually, there can be found no general conclusion, and they extend the canon to whatsoever length they please.

We may also take a perpetual fugue in the fifth or fourth, that is to say, that every part shall repeat the air of the foregoing, a fifth or a fourth higher or lower. But in that case the canon must be supposed quite entire, *di prima intenzione*, as the Italians say, and B sharp's or diesis's must be added to the notes, whose natural degrees could not exactly render, in the fifth or fourth, the air of the preceding part. We ought not here to pay the least regard to any modulation, but only to the identity of the air, which renders the composition of the canon more difficult; for every time that a part receives its fugue, it enters into a different tone: it has variations in almost every note, and what is worse, no one part is found at the same time in the same tone as another; which occasions that these kinds of canons, besides being difficult to follow, never form an agreeable effect, however good its harmony may be, and however well they may be sung.

There is a third kind of canons very scarce, as much on account of their exceeding difficulty, as because being generally bereft of arguments, they have no other merit than having cost a great deal of trouble to compose them. This is what might be called double canon varied, as much through the inversion which is placed therein in the singing of the parts, as thro' *that* which we find amongst the parts themselves in singing them. There is such an artifice in this kind of canons, that whether we sing the parts in their natural order, or change the paper to sing them in a retrograde direction by beginning at the end, and placing the bass above, we always find a good harmony, and a regular canon.

*Double Canon perverted.*

A musical score for a double canon in C major, 4/4 time. It consists of four staves. The top staff is labeled 'Bass' and the bottom staff is labeled 'Treble'. The middle two staves are labeled 'Counter' and 'Tenor'. The music is written in a perverted canon style, where the melody is inverted. The score shows the first five measures of the piece.

*Another Double Canon perverted.*

A musical score for another double canon in C major, 4/4 time. It consists of four staves. The top staff is labeled 'Treble' and the bottom staff is labeled 'Bass'. The middle two staves are labeled 'Counter' and 'Tenor'. The music is written in a perverted canon style, where the melody is inverted. The score shows the first five measures of the piece.

The above examples of those kinds of canons are taken from Botempi, who also gives rules for the composition of them. But we shall find the true principle of these rules under the word *System*, in the exposition of that of Mons. Tartins.

To compose a canon where harmony may be a little varied, the parts must not follow each other too suddenly, and one must not enter till sometime after the other. When they follow one another with such velocity, as, at a pause, or demi-pause, there is no time for making several concords pass, and the canon cannot fail of being monotonous. But it is a method of making without much trouble, a canon at whatever part we please, for a canon of four measures only will be instantly of eight, if they follow each other at the demi-pause; and in every measure which is added, two other parts will be also gained. The emperor Charles VI. who was a great musician, and an excellent composer, took great pleasure in making and singing canons. Italy is still full of very fine canons, which had been made for that prince, by the best masters of the country.

**CANTABILE**, An Italian adjective, which signifies, convenient for singing. It is proper to every air, whose intervals, in whatsoever measure they may be, are not too large, nor the notes too precipitate, so that they can be easily sung without forcing or injuring the voice. The word cantabile is by degrees also past into the French language.

**CANTATA**, A kind of little lyric poem, which is sung with accompaniments, and which, though composed for a private room, ought to receive from the musician the fire and graces of imitative and theatrical music. Cantatas are generally composed of three recitatives, and as many airs. Those which are a recital, and the airs, their maxims are always cold and disagreeable: The musician ought to abolish them. The best are those wherein the principal person speaks himself in a situation lively and affecting; for our cantatas are in general composed for one voice. There are, however, some for two voices, in form of a dialogue, and those are somewhat agreeable when the composer knows the art of introducing something in them of an interesting nature. But as a few preambles are always necessary to make a kind of exposition, and give the hearer some ideas, 'tis not without reason that cantatas have changed their form, and that even in concerts they have substituted opera scenes in their place. The mode of cantatas takes its origin from Italy, as we may see by their name in Italian, and 'tis Italy also which first placed bounds to them. The cantatas made there at present, are absolutely dramatic pieces to many actors, which differ from operas only in what the one represents on the stage, and the other executes in concert, so that the cantata is, on a profane subject, what the oratorio is on one that is sacred.

**CANTATILLE**, Is a diminutive of cantata, and in reality only a very short cantata, whose subject is united by some verses in recitative, in two or three airs in rondeau for the most part,

part, with some accompaniments of symphony. The nature of the cantatilla is still more trifling than that of the cantata, in whose place it has been substituted amongst us. But as we can neither discover passions or painting therein, and as it is susceptible of gentility only, 'tis a resource for the inferior verse scribblers, and for musicians without genius.

**CANTIC**, A hymn sung in honour of the divinity. The first and most ancient cantics were composed on account of some memorable event, and may well be reckoned as the most ancient historical monuments.

These cantics were sung by choirs of musicians, and often accompanied with dances, as it appears by writings. The most distinguished piece that we meet with of this nature, is the cantic of cantics; a work attributed to Solomon, and which some authors pretend to be his epithalamium only, on his marriage with the daughter of the king of Ægypt. But the Theologicians discover under this emblem, the union of Jesus Christ and the Church. The Sieur de Cahusac saw, in this cantic of cantics, nothing more than a well composed opera, the scenes, the dialogue, the duo, the choirs, were intirely perfect; nothing was wanting, and he made no doubt but that the opera had been represented.

I do not know any of the pieces of music in the Roman church, which have yet retained the name of cantic, unless it be the cantic of Simeon, that of Zachara, and the Magnificat, stiled the cantic of the Virgin. But amongst us every thing sung in our temples is called cantic, except the psalms, which retain their proper name.

The Greeks gave the name of cantics also to several passionate soliloquies of their tragedies, which we sung in the hypo-dorian or hyphrygian stile, as Aristotle teaches us in his nineteenth problem.

**CANTO**, This Italian word, written in a partition, on the scale fixed for the first violin, shews that it should play in unison on the singing part.

**CAPRICIO**, A kind of irregular piece of music, in the which the author, without confining himself to any subject, gives scope to his genius, and indulges the whole fire of composition. The capricio of Rebel was esteemed in its day. At present the capricios of Locatelli are become the exercise of our violins.

**CARRILLON**, A kind of air made to be performed by a number of bells, tuned in a different harmony. As the carrillon is rather made for the bells than the bells for the carrillon, there are no more sounds permitted therein than there are bells. We must moreover observe, that all their sounds, having some duration, each one of those which are struck should form a harmony

mony with that which precedes it, and that which follows; a subjection which, in a lively movement, ought to extend itself through a whole measure, and even farther, so that the sounds which continue together may make no dissonance to the ear. There are several other observations to be made for the composition of a good carrillon, which renders this work more laborious than satisfactory, for the music of bells is filly at the best, tho' all their sounds be exactly true, which never happens.

*A Conjonant Carrillon of Nine Bells.*



We may here see the example of a consonant carillon, composed to be executed on a pendulum of nine bells, formed by Mons. Romilly, a celebrated clock-maker. It is generally imagined, that the exceeding difficulties to which the harmonic succession of sounds, and the small number of bells are subject, will not permit any thing vocal in an air of this nature.

CARTELS, Large sheets of asses-skin prepared for the purpose, on which are drawn the lines of the scale, for the benefit of marking thereon every thing necessary for composition, and rubbing it out at pleasure with a sponge: The other side, which has no scale, may serve for scribbling, and is rubbed out in the same manner, provided that the ink is not left to dry. With a cartel, a diligent composer may be supplied for ever, and spare many quires of ruled paper; but there is this inconvenience, that the pen passing continually on the engraved lines, easily wears out and softens. All the cartels take their rise from Rome or Naples.

CASTRATO, A musician, who in his infancy had been deprived of the organs of generation, for the sake of preserving a shrill voice, who sings that part called soprano. However small the connection may appear between two such different organs, it is a certain fact that the mutilation of the one prevents and hinders in the other that change which is perceptible in mankind, near the advance of manhood, and which, on a sudden, lowers their voice an eighth. There exist in Italy, some inhuman fathers, who sacrificing nature to fortune, give up their children to this operation, for the amusement of voluptuous and cruel persons, who have the barbarity to require the exertion of voice which the unhappy wretches possess. Let us leave to the modest ladies of great cities, the stifled laughs, the disdainful air, and the jocular sneers, whose external object they are; but let us explain, if we are able, the voice of modesty and of humanity, which vociferates loudly against this horrid custom; and let those princes, who encourage it by their endeavours, blush for once, at the thought of injuring, in so many respects, the preservation of the human race!

In the next place, the advantage of voice in these castrati is amply recompensed by many other losses.---These men, who sing so well, but without fire or passion, become on the stage the most miserable actors in the world: They love their voice at an early period, and gain, in return, an affectation very disgusting. They speak and pronounce worse than *men themselves*, and there are also several letters, such as the *r*, which they cannot pronounce at all.

Though the word castrato cannot offend the most delicate ear, 'tis not the same thing in regard to its French synonymy. An evident proof, that what renders words indecent or immodest, depends less from the ideas attached to them, than from the practice of genteel company, in regard to their toleration or abolition of them.

CATABAUCALISIO, A nurse's humdrum ditty amongst the ancients.

CATACOUSTIC, A science whose chief objects consist in reflected sounds, or that part of the acoustics which considers the propriety of the eccho. For which reason the catacoustic is to the acoustics what the catoptric is to the optic.

CAVATINA, A kind of air, in general rather short, which neither has a return nor second part, and which is often found in confined recitatives. This sudden change from recitative to a measured harmony, and the unexpected return of the measured harmony to the recitative, produce an admirable effect in sublime expressions, as are always those of the confined recitative.

The



The word *cavatina* is Italian, and tho' I wish not in this dictionary all the technical Italian words, particularly when these words are synonymous to another language, yet I think myself obliged to explain *those* of such words which are employed in the marked music; because, that in executing this music, it is necessary to understand the terms which are therein, and which the author has not placed without a reason.

**CENTONIZARE**, A term in church-music. 'Tis to compose an air with backward lines, properly arranged for the melody in question. This method of composition is not the invention of the modern symphonists, since, according to Mons. L'Abbé de Bœuf, Saint Gregory himself was conversant in the art.

**CHACON**, A kind of musical piece formed for the dance, the measure of which is well marked, and the movement moderate. Formerly there were chacons of two and three times, but at present they compose them only of three. They are in general airs, which are called couplets, composed and varied in different manners on a constrained bass, from four to four measures, beginning almost always by the second time to prevent an interruption. We have by degrees abolished this constraint of the bass, and pay little or no attention to it.

The beauty of the chacon consists in finding notes which express the movement well, and, as it is often very long, in varying the couplets in such a manner that they may make a mutual contrast, and continually enliven the attention of the hearer. For this purpose we pass and repass at pleasure from the major to the minor, without quitting, however greatly, the principal tone; and from the grave to the gay, or from the tender to the lively, without ever exceeding or lessening the measure.

The chacon was first introduced in Italy, and formerly in great esteem there, as well as in Spain. But at present it is no longer known, except in the French operas.

**AMBROSIAN CHANT**, A kind of church-music, the invention of which is attributed to St. Ambrose, archbishop of Milan. (Vide **CHURCH-MUSIC**.)

**GREGORIAN CHANT**, A kind of church-music, the invention of which has been attributed to Pope St. Gregory, and which has been substituted or preferred in most churches to the ambrosian chant. (Vide **CHURCH-MUSIC**.)

**CHANT en ISON**, By this name is called an air, or psalmody, which varies only in two sounds, and consequently forms one interval only. Some religious orders have no other chant, in their churches than the **Chant en Ison**.

**CHANT**

**CHANT SUR LE LIVRE,** A kind of plain chant, or counterpoint in four parts, which the musicians compose and sing extempore on one only, i. e. the book of chorusses at the Lutrin, so that, except the pricked part, which is generally put on the tenor, the musicians being attentive to the three other parts, have that only for their guide, and each composes his separate part whilst singing.

The Chant sur le Livre requires great knowledge, practice, and a fine ear in those who execute it, so much the more, as it is not always easy to render the tones of the church-music similar to those of ours. However, there are some church-musicians, so well versed in this kind of singing, that they can begin and even go through the fugues whenever the subject can permit, without confounding or crushing the parts, or making any errors in the harmony.

**CHANTEREL,** That of the strings of the violin, and similar instruments, whose sound is sharpest. We say of a symphony, that it does not quit the chanterel, when it actuates only between the sounds of that string, and those which are nearest to it, as are almost all the violin parts of Lully's operas, and of the symphonies of his time.

**CHAPEAU, or TIE,** A demi circular stroke, with which two or more notes are covered, and which is more commonly called Liaison.

**CHARACTERS of MUSIC,** Are the different signs which are used to represent all the sounds of melody, and all the powers of the times and measure, so that by the assistance of those characters one may read and execute music exactly as it has been composed, and this method of writing is called pricking. (Vide NOTES.)

There are no nations but the European, who understand the art of writing their music. Tho' in the other parts of the world every people has its own; it does not appear that any of them have extended their researches so far as the formation of characters to denote it. At least, it is certain that neither the Arabians or Chinese, the two foreign people who have most cultivated the arts, have any such similar characters. It must be confessed, that the Persians give the names of their citus, or parts of the human body to the forty-eight sounds of their music. They say, for instance, to give the tone of any air, "Go from such to such a city," or "Go from the finger to the elbow;" but they have no sign proper for expressing these same sounds on paper; and in regard to the Chinese, we find in P. du Halde, that they were extremely surprised to see the Jesuits mark and read on the same note, all the Chinese airs, with which they made them acquainted.

The

The ancient Greeks in their music, as in their arithmetic, made use of the letters of their alphabet, but instead of giving them in music a numerous power, which might mark the intervals, they were contented with using them as signs, combining them in different ways, clipping them, coupling, rendering them silent, and changing them differently, according to their kinds and modes, as we may see in the miscellany of Alypius.----The Latins imitated them in making use of the letters of the alphabet, by their example, and there still remains amongst us the letter joined to the name of every note of our diatonic and natural scale.

Guy Aretin invented the lines, and particular signs, which have remained to us under the name of notes, and which are at present the musical and universal language of all Europe. As these last signs, though unanimously admitted, and perfected since the time of Aretin, have yet some great faults; many have endeavoured to substitute other notes in their place: Of this number have been Parran, Souhaitti, Sauveur, Dumas, and myself. But as, at bottom, all these systems, in correcting old faults to which we were accustomed, only substituted others, which custom is *yet* to make familiar to us; I think that the public acted very wisely in leaving things as they were, and sending us and our systems back into the country of vain speculations.

**CHORISTER,** Those who sing in the choir of Catholic churches are called choristers. We do not say singer in a church, or chorister in a concert.

Among the reformed, they call chorister, him who gives the tone and sustains the air of the psalms in their temple: He is seated below the minister's choir forwards; his office requires a very strong voice, capable of exceeding that of the congregation, and of making himself heard to the very extremity of the temple. Though there be neither prosody nor measure in the French method of singing psalms, and tho' the tune is so slow that every one may easily follow it, yet, it seems to me that it must be necessary for the chorister to mark a kind of measure. The reason of it is, that the chorister being very distant from several parts of the church, and the sound passing slowly thro' the greater intervals, his voice can hardly be heard at the extremities till it has taken another tone, and began a different note, which becomes so much the more sensible in certain places, as the sound passing still more slowly from one extremity to the other, than from the middle, where the chorister is, the mass of air which fills the temple becomes at once divided into several very discordant sounds, which incessantly press one on the other,  
and

and disgust greatly a nice ear; a fault that the organ itself only increases, because instead of being in the middle of the edifice, as the chorister, it gives the tone only from one end.

The remedy of such an inconvenience appears to me exceedingly simple; for as the visual rays are instantly communicated from the object to the eye, or at least, with a velocity much greater than that with which the sound is transmitted from a sonorous body to the ear, it is sufficient to substitute one for the other, to have in the whole compass of the temple, a tune well sustained, and of a perfect concord. For this purpose, we have nothing to do but to place the chorister, or some one who discharges that part of his office, so that he may be in view of the whole congregation, and let him make use of a time-stick, the motion of which may be easily perceived at a distance, for instance, a roll of paper; for then, with the precaution of giving a sufficient duration to the first note, that the intonation of it may be extended on all sides before it's followed; all the rest of the tune will proceed perfectly well together, and the discord which I mentioned, must infallibly disappear. We might even, instead of a man, make use of a chronometre, the motion of which would be still more equal in so slow a measure.

From thence would result two other advantages also; one, that almost without changing the air of the psalms, it would be easy to introduce therein a little prosody, and at least to observe the most sensible long and short; the other, that whatever languor and monotony there might be in the tune, might, according to the first intention of the author, be extirpated by the bass and other parts, whose harmony is certainly the most majestic and sonorous that can be heard.

**CHORUS**, A piece of music, complete in four or more parts, sung at the same time by all the voices, and played by the whole band. In chorusses we seek for an agreeable and harmonious melody, which may charm and satisfy the ear. A pleasing chorus is the master-piece of a beginner, and 'tis by a work of this kind that he shews himself sufficiently instructed in all the rules of harmony. The French, in France, pass for the most excellent in that particular branch, of any European nation. The chorus, in the French music, is sometimes called grand-chœur, in opposition to the petit-chœur, which is composed of three parts only, that is to say, two trebles and the tenor, which serves as their bass. This petit-chœur is now and then played separately, the sweetness of which makes an agreeable contrast to the loud harmony of the greater.

They give the name of petit-chœur also, in the opera of Paris, to a certain number of the best instruments in every kind, which as a particular orchestra are placed next to the harpsichord, and  
him

him who beats the time. This petit-chœur is destined for the accompaniments, which requires a greater delicacy and precision.

There are some pieces of music of two or more chorusses, which answer each other, and sometimes are all sung together. We may find an example of this in the opera of Jephtha. But this plurality of chorusses, which is very often practised in Italy, is seldom used in France. They find that it does not produce a very pleasing effect, that its composition is not very easy, and that too great a number of musicians are wanted for the execution of it.

**CHORION**, A piece of Greek music, which was sung in honour of the mother of the gods, and which is said to have been invented by Olympus of Phrygia.

**CHRESES** or **CHRESIS**, One of the parts of the ancient *melepea*, which teaches the composer to place such an arrangement in the diatonic direction of sounds, as to form from them a good modulation and an agreeable melody. This part is applicable to different successions of sounds, called, by the ancients, *agoge*, *euthia*, *anacamptos*.

**CHROMATIC**, A kind of music which proceeds in several consecutive semi-tones. This word is derived from the Greek *χρῶμα*, which signifies colour, either because the Greeks marked these notes with red characters, or differently coloured; or, according to authors, because the chromatic kind is a medium between the two others, as colour is between black and white; or according to others, because this kind varies and embellishes the diatonic by its semi-tones, which, in music, produces the same effect as the colours in painting.

Boetius attributes the invention of this chromatic music to Timotheus of Milet; but Athenæus to Epigonus.

Aristoxenes divides this kind into three sorts, which he calls *molle*, *hemiolion*, and *tonicum*; the connections of which we may here find, the tetrachord being supposed to be divided in 60 equal parts.

According to Aristoxenes.

Diatonic.

The tender or soft  $12 + 18 + 30 = 60$

Syntonic or hard  $12 + 24 + 24 = 60$

Chromatic.

Molle  $8 + 8 + 44 = 60$

Hemiolon  $9 + 9 + 42 = 60$

Tonic  $12 + 12 + 35 = 60$

Harmonic.

$6 + 6 + 48 = 60$

Ptolomæus divides this same kind into two sorts only, molle, or anticum, which proceeds by lesser intervals; and intensum, the intervals of which are greater.

According to Ptolomæus.

Diatonic.

$$\text{Diatonic } \frac{256}{243} = \frac{9}{8} + \frac{9}{8} + \frac{4}{3}$$

Chromatic.

$$\text{Molle } \frac{28}{27} = \frac{15}{14} + \frac{6}{5} + \frac{4}{3}$$

$$\text{Intense or Syntonic } \frac{22}{21} = \frac{12}{11} + \frac{7}{6} + \frac{4}{3}$$

Harmonic.

$$\frac{45}{45} = \frac{24}{23} + \frac{5}{4} + \frac{4}{3}$$

At present the chromatic kind consists in giving such a course to the fundamental bass, that the parts of the harmony, or at least some one of them, may proceed by semi-tones, as much in ascending as descending, which is most frequently found in the minor mode, on account of the alterations to which the 6th and 7th notes are subject, by the very nature of the mode.

The successive semi-tones practised in the chromatic, are not all of the same kind, but almost alternately minors and majors; that is to say, chromatics and diatonics: for the interval of a minor tone contains a semitone minor or chromatic, and a semitone major or diatonic, a measure which its government makes common to all the tones; so that we cannot proceed by two conjoint and successive semi-tones minor, without entering on the harmonic; but two major semi-tones follow each other twice in the chromatic order of the gamut.

The elementary route of the fundamental bass, to produce an ascendant chromatic, is to descend from the third, and ascend to the fourth alternately, all the concords sustaining the major third. If the fundamental bass proceeds from dominant to dominant, by perfect cadences avoided, it produces a descendant chromatic. To produce at the same time the one and the other, we intermix the perfect cadence, and the interruption by avoiding them.

As in every note the tone is changed in the chromatic, we must set bounds and regulate these successions for fear of losing ourselves; and for this purpose, it must be remembered, that the space which is most suitable for the chromatic movements, is between the dominant and tonic in ascending, and between the tonic



nic and dominant in descending. In the major mode we may also descend chromatically from the dominant on the second note. This passage is very common in Italy, and, tho' beautiful, is rather too much so in France.

This chromatic is admirable for expressing sorrow and affliction, its forcible sounds in rising strike the soul. It is not less energetic in descending: We seem then even to hear the identical groans. When accompanied by its harmony, this kind becomes proper for every thing; but its fulness, by stifling the air, takes away a part of its expression, and 'tis then the office of the movement to restore to it *that* which it is deprived of by the plenitude of its harmony. Moreover, the greater energy this kind possesses, the less should it be augmented: Like those delicate dishes whose abundances soon disgust, so it charms when prudently conducted, so it becomes fatiated when overdone.

**CHRONOMETRE**, The general name of instruments which serve to measure the time. This word is composed of χρόνος, time, and μέτρον, measure.

In this sense we call watches or clocks by the name of chronometres. There are however some instruments which are particularly called chronometres, and one in chief which Mons. Sauveur describes in his principles of the acoustics. This was a particular pendulum, which he intended to determine exactly the movements of music. L'Affilard, in his principles dedicated to a convent of nuns, placed at the head of all his airs, cyphers, which expressed the number of the vibrations of this pendulum, during the continuation of each measure.

About thirty years ago there appeared a plan of a similar instrument under the name of Metrometre, which beat time alone, but it neither succeeded in one or the other. Many pretend, however, that it were much to be wished, that such an instrument might be had, to fix with precision the time of each measure in a piece of music: by this means we might easily preserve the true movement of the airs, without which they lose their value, and which one cannot know after the death of the authors, but, by a kind of tradition, very subject to change or obscurity. It is already a complaint, that we have forgot the movements of a great number of airs, and it is to be believed, that all have undergone a change. If they had had the precaution which I have mentioned, and in which I see nothing inconvenient, we should at present have had the pleasure of hearing those same airs, such as the author intended them to be executed.

To this the connoisseurs in music do not remain without an answer: They will object, says Mons. Diderot, in his *Memoirs on different Subjects of the Mathematics*, against all chronome-

tres in general, that there is not, perhaps, in an air two measures which are exactly of the same duration: two things contributing thro' necessity, to slacken the one and hasten the other, taste and harmony in pieces of many parts, taste and a presentiment of the harmony in the solo. A musician who understands his art, has not played four measures of an air but he enters into the character of it, and is intirely wrapt up in it: The pleasure of the harmony only suspends him. He wishes the concords to be struck *here* and *there*, that they should be omitted, that is to say, that he should sing or play more or less slowly, from one measure to another, and even from a time or quarter time, to him who follows.

In fact, this objection, which is of great weight in the French music, is of no kind of consequence in the Italian, it being most strictly confined to the most exact measure: Nothing even can more plainly shew the opposition of these two musics; since, what is a beauty in the one, would be a capital fault in the other. If the Italian music draws its energy from that slavery to the rigour of the measure, the French seeks her's by modulating this same measure at her pleasure; by augmenting or diminishing it, according to what the nature of the air requires, or the degree of flexibility in the voice of the singer.

But should we admit the utility of a chronometre, we must always, says Mons. Diderot, begin by rejecting all those which we have proposed to follow, because we form, from the musician and the chronometre, two separate machines, the one of which can never be aptly subject to the other: This hardly can require a proof. It is impossible that the musician can have, throughout the whole of his piece, his eye on the movement, and his ear attentive to the sound of the pendulum; and if he is lost but one moment, lost is the rein also which they have pretended to have given him.

I will add, that whatever instrument may be found to regulate the duration of the measure, it must be impossible, tho' the execution should be of never so great facility, that it can ever have a place in practice. The musicians confident, and, like many others, forming the rules of a good taste from their own, would never adopt it. They would leave the chronometre, and would apply to themselves only the true character and true movement of the airs. For which reason, the only good chronometre we can have, is an ingenious musician, who has taste, who has well read the music he is to execute, and who is skilled in beating its time. Amongst the variety of machines, this certainly is the safest to confide in.

CHURCH MUSIC, or PLAIN CHANT, Was a name given in the Roman church to the ecclesiastic airs. This chant,  
just

just as it remains to this time, is an antiquity very much disfigured, but very precious, of the Greek music, which after having passed thro' the hands of barbarians, has not, however, been able to lose all its primitive beauties. There remains yet enough of it to render it much preferable, even in its present condition, and for the use to which it is intended to those effeminate and theatrical pieces, which in some churches are substituted in its place, without gravity, without taste, without agreement, and without respect for the place which they dare thus to profane.

The time when the christians began to have churches, and to sing psalms and hymns therein, was that wherein music had already lost all its ancient energy, by a progress, the causes of which I have mentioned elsewhere. The christians entering upon music in the condition which they found it in, took from it even the greatest strength that had remained to it, that is to say, that of the rhyme and metre; when, instead of the verses, to which it had been always applied, they changed it into the prose of their sacred writings, or some strange kind of barbarous poetry, worse for music than the prose itself. In that case, one of the two consecutive parts vanishes, and the air extending itself uniformly, and without any kind of measure, from notes to notes almost equal, loses, with its rhymic and cadenced form, all the energy which it received from it. There were but a few hymns, in the which the prosody and quantity of feet being preserved, we still felt, in a lesser degree, the cadence of the verse, but it was no longer the general characters of the plainchant, most generally degenerated in a psalmody, always monotonous, and sometimes silly, in a language such as the latin, much less harmonious and accented than the Greek.

In spite of all these so great and so essential losses, the plainchant preserved elsewhere by the priests in its primitive character, as well as all the exterior and ceremonious parts of their church, still presents some precious fragments of the ancient melody, and its different modes to connoisseurs, as much as it can make itself felt without measure, and without rhyme, and in the only diatonic kind, which we can attribute in its purity to the plainchant. The different modes therein preserve their two principal distinctions; the one thro' the difference of the fundamentals or the tonics, and the other by the different position of the two semi-tones, according to the degree of the diatonic natural system, wherein the fundamental is found, and according to what the modo autentico, or plagal, represents the two tetrachords, conjoint or disjoint, (Vide SYSTEMS, TETRACHORDS, TONES of the CHURCH.

These modes, such as they have been transmitted to us in the ancient ecclesiastic chant, preserve therein a beauty of character,  
and

and a variety of affections, very sensible to an impartial connoisseur, and which have preserved some judgment of the ear for the melodious systems, established on principles different from ours : but we may well say, that there is nothing more ridiculous and more flat, than these plain-chants suited to our modern music, embellished with the ornaments of our melody, and modulated on the chords of our modes ; as if our harmonic system could at any time be united to that of the ancient modes, which is established on principles exactly opposite. We ought to thank the bishops, prebends, and choristers, who have opposed this barbarous mixture, and use our utmost endeavours for the progress and perfection of an art, which is very far from the point at which it has been placed, that these valuable remains of antiquity may be faithfully transmitted to those who have sufficient talents and authority to enrich the modern system by the addition of them. How far soever our music may have been extended into that of the church, I am persuaded that it would be preferable to convey the church music into ours ; but for that, much taste is necessary, still *more* knowledge, and above all, an exemption from every kind of prejudice.

The church music is pricked on four lines only, and there are but two clefs used in it, i. e. that of ut, and the clef of fa ; one transposition only, that is to say, a B flat, and but two representations of notes, which are the long or sharp, to which is sometimes added, a tail, and the short which is formed as a lozenge.

Ambrosius, archbishop of Milan, is said to have been the inventor of the plain-chant ; that is to say, that he was the first who gave a form and rules to the ecclesiastic chant, to suit it better to its object, and to defend it from the barbarity and obscurity into which music was fallen in his time. Pope Gregory perfected it, and gave it the form which it preserves at present in Rome, and the other churches, in which the Roman melody is practised. The French church allows the Gregorian chant but in part, with much ill-will and almost thro' necessity. The following extract from a work about that time, printed at Francfort in 1594, contains the account of an ancient quarrel on account of the plain chant, which was renewed in our days on music, but which had not, God and king Charlemagne be praised, the same issue.

“ The pious king Charles being returned to celebrate the  
 “ festival of Easter with our apostolic lord at Rome, there  
 “ arose, during the feast, a quarrel between the French and  
 “ Italian choristers. The French pretended to sing better and  
 “ more agreeably than the Italians. The latter declaring them-  
 “ selves superior in the ecclesiastic music, which they had learned  
 from

“ from Pope St. Gregory, accused the French of corrupting and  
 “ disfiguring the true melody. This dispute being laid before  
 “ his majesty, the French, who relied greatly on his partiality,  
 “ insulted the Italian fingers. *They*, proud of their superior  
 “ knowledge, and comparing the learning of St. Gregory to  
 “ the rusticity of the others, treated them as clowns, fools, and  
 “ silly pretenders. As this altercation still continued, the pi-  
 “ ous monarch said to his choristers, Tell us, which is the purest  
 “ and most excellent water, that drawn from the fountain head,  
 “ or that of the streams which flow at an extensive distance  
 “ from it. All consented in pronouncing that of the fountain  
 “ head the most pure, and that of the rivulets so much inferior  
 “ as the distance whence it flowed. Have recourse then, re-  
 “ plied Charles, to the fountain of St. Gregory, whose music  
 “ you have undoubtedly corrupted. The king then desired of Pope  
 “ Adrian some choristers to correct the French chant, and his  
 “ holiness gave him Theodorus and Benoit, two very ingenious  
 “ fingers, and instructed by St. Gregory himself; he gave him  
 “ also some Antiphonaries of St. Gregory, which he had himself  
 “ set down in Italian Notes. Of these two choristers, the king,  
 “ on his return into France, sent one to Metz, and the other  
 “ to Soissons, giving all the music-masters in the cities of France  
 “ orders to give them their Antiphonaries to correct, and learn  
 “ from them to sing. Thus were the French Antiphonaries  
 “ corrected, which every one had changed by additions and re-  
 “ trenchments after his fancy; and all the choristers of France  
 “ learned the Roman chant, tho’ they have now given it the  
 “ name of French: but in regard to the trembling, broken, and  
 “ clipp’d notes in this kind of music, the French could never  
 “ render them, making rather an uncouth noise than a trill, on  
 “ account of the natural and barbarous roughness of their  
 “ throats. As for the remainder, the principal school was al-  
 “ ways kept at Metz; and as much as the Roman chant sur-  
 “ passes that of Metz, so much that of Metz excels the other  
 “ schools of France. The Roman choristers taught the French  
 “ also the accompaniment of instruments; and the king, having  
 “ at the same time taken with him into France grammarians  
 “ and arithmeticians, ordered that the study of letters should  
 “ be established throughout; for before this said king Charles,  
 “ the knowledge of the liberal arts was intirely unknown in  
 “ France.”

CIRCUMVOLUTION, A term in church-music. 'Tis a  
 kind of perielesis, which is made by inserting between the pe-  
 nultimate and the last note of the intonation of a piece of  
 music, three other notes, viz. one above and two below the last  
 note, which three are united with it, and form the compass of a  
 third

third before meeting with it, as if you were to have these three notes, mi, fa, mi, to terminate the intonation, you would intermix these other three, fa, re, re, and in that case your intonation must be finished in this manner, mi, fa, fa, re, re, mi, &c.

**CITHARISTIC**, A kind of music and of poetry appropriated to the accompaniment of the harp. This kind, of which Amphion, son of Jupiter and Antiope, was the inventor, has since taken the name of lyric.

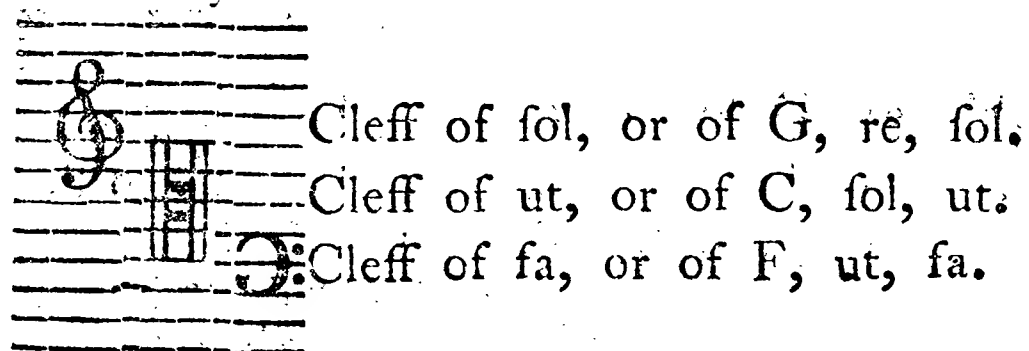
**CLEFF**, A character of music, which is placed at the beginning of a staff to determine the degree of elevation of that staff in the general key, and to express the names of all the notes which it contains within the line of that cleff.

Formerly the name of cleff was given to the letter, by which the signs of the gamut were denoted. Thus the letter A was the cleff of the note la ; C the cleff of ut ; E the cleff of mi, &c. In proportion as the system was extended, they found the difficulty and the inutility of this quantity of cleffs. Gui d'Arrezzo, who had invented them, marked a letter of cleff at the beginning of each line of the scale, for he had not yet placed the notes within the spaces. In some little time, they marked only one of the seven cleffs at the beginning of one line only, that being sufficient to fix the position of all the rest, according to their natural order. At last, from these seven lines or cleffs, four were chosen, which they called *claves signatæ*, because they were satisfied with marking one on one of these lines to give the idea of all the others ; in time, one of the four was removed ; that is, the gamma which they made use of to denote the sol below, viz. the hypoproslambanomenos added to the system of the Greeks.

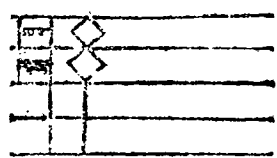
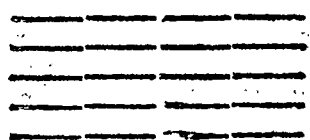
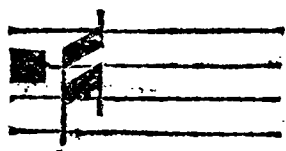
Kitcher effectually pretends that if we were acquainted with the ancient writings, and were to examine the figure of our cleffs, we should find, that each one has a connection with the letter a little varied of the note which it represents. For instance, the cleff of sol was originally a G ; the cleff of ut a C ; and that of fa an F.

We find then in the fifth, three cleffs, one after the other. The cleff of F, ut, fa, or of fa, which is the lowest ; the cleff of ut, or of C, sol, ut, which is a fifth above the first ; and the cleff of sol, or of G, re, sol, which is a fifth above that of ut, in the order marked as follows.



*The Keys.*

In regard to which we should remark, that by a remain of ancient custom, the cleff is always plac'd on one line, and never in the space. We should know also that the cleff of fa is made in three different manners; the one in printed music, another in the written or engraved, and the last in church-music.

*The three different representations of the Cleff Fa.**Printed Music.**Written Music.**Church-Music.*

By adding four lines above the cleff of sol, and three below the cleff of fa, which gives, on each side, the greatest extent of stable lines, we may see, that the whole system of notes which can be placed on the relative degrees of these cleffs, amounts to 24; that is to say, 3 eighths and a fourth from the fa, which is placed below the first line to the si, which is found above the last, and all this together forms, what is called, the general key; by which we may judge, that this extent has for some time made that of the system. At present, whilst new degrees are incessantly forming, as well in sharp as flat, those degrees are marked on lines added on the top or bottom, just as required.

Instead of joining together all the lines as I have done, to express the connection of the cleffs, they are separated into fives,  
L because

because the extent of the voice in general is bounded nearly by the degrees contained within that space. This collection of five lines is called stave, and a cleff is there placed to determine the name of the notes, the place of the semitones, and to shew what part the stave requires within the key.

By whatsoever method we take five consecutive lines, within the gamut we always find a cleff comprised therein, and sometimes two, in which case we cut off one as useless. Custom has even prescribed which of the two should be effaced, and which should stand, which has also fixed the number of positions assigned to each cleff.

If I make a stave of the five first lines of the gamut, beginning at the bottom, I find the cleff of fa on the fourth line. Here then is the position of a cleff, and that position evidently belongs to the flattest notes. In like manner is it the position of the bass cleff.

If I wish to have a third at the top, I must add a line above, but in that case I must erase one below, otherwise the stave would consist of more than five lines. The cleff of fa is then removed from the fourth to the third line, and the cleff of ut also on the fifth; but as two cleffs are useless, that of ut is here rejected. We see that the stave of this cleff is elevated a third more than the preceding.

By losing also a line below to gain one above, we have a third stave, wherein the cleff of fa must be placed on the second line, and that of ut on the fourth: here we lose the cleff of fa, and take that of ut. We have gained also a third in sharp, and lost it in flat.

By continuing thus from line to line, we pass successively through four different positions of the cleff of ut. Coming to that of sol, we find it placed on the second line, and again on the first: This position extends itself to the five highest lines, and gives the sharpest diapason, that can be established by the cleffs.

We may see this succession of cleffs from flat to sharp, which makes in all eight staves, cleffs, or different positions of cleffs.

Whatever may be the character of a voice or instrument, provided that its extent does not exceed in sharp or flat, that of the general gamut, we may in this number find a stave and cleffs suitable to it; and there are in reality some determined for all the parts of music. (Vide PARTS) If the extent of a part is very great, so that the number of lines, which must be added above or below, becomes inconvenient, in that case, the cleff is changed within the course of the air. We evidently see by the figure, what cleff we must take to elevate or lower the stave,  
whatever

whatever may be the key with which it is actually numbered.

We also see, that to connect one cleff with another, we must connect them both on the general scale; by the method of which, we see what each note of one of the cleffs is in proportion to the other. 'Tis by this reiterated exercise, that we learn the art of easily reading the partitions. From this mechanism it follows, that we may place whatever note of the gamut we please on any line or space of the stave; since we have the choice of eight different positions, the number of the notes of the octave. In this manner, we might prick an entire air on the same line, by changing the cleff in every degree. The figure seven, shews, through the course of cleffs, the course of the notes re, fa, la, ut, mi, sol, si, re, ascending from third to third, and all placed on the same line.

The following figure 8 represents in the course of those same cleffs the note ut, which seems to descend by thirds on all the lines of the stave, and below; and which, however, by means of the change in the cleff, preserves always its unison. 'Tis on similar examples that we ought to practice, to know at first sight the play of all these cleffs.

Here are two of their positions; that is to say, the cleff of sol on the first line, and the cleff of fa on the third, the use of which seems daily to abolish. The first may appear less necessary, since it forms one position only quite similar to that of fa on the fourth line, which, however, it is different from by two eighths. As for the cleffs of fa, it is evident, that by removing it entirely from the third line, we shall no longer have an equivalent position; and the composition of the gamut, which is at present complete, must by that means become defective.

**TRANSPPOSED CLEFF,** By this name we call every cleff, numbered with diesis's, or B's flat. These signs serve there to change the place of the two semi-tones of the octave, as I have explained under B flat, and to establish the natural order of the gamut, on whatever degree of the scale we may desire.

The necessity of these alterations arises from the similitude of modes in all the tones; for as there is but one form for the major mode, all the degrees of this mode must be placed in the same method on their tonic, which cannot be done but by the assistance of diesis's, or of B mollare's. The minor mode is conducted in the same manner; but as the same combination which gives the form for a major tone, gives it also for a minor on another tonic, (Vide *MODE*) it follows thence, that for the twenty-four modes, twelve combinations are sufficient; moreover, if with the natural gamut, we count six modifications by diesis, and five by B's flat, or six by B's flat, and five by diesis's,

diefis's, we shall find these twelve combinations, by which are bounded, all possible varieties of tones and modes in the established system. I explain, under the words diefis's, or B's flat, the order, according to which they ought to be placed in the cleff. But for transposing on a sudden the cleff, suitable to any tone or mode soever, here is a general form discovered by Moni. Boisgelou, president of the Grand Council, and which he has obligingly communicated to me.

Taking the natural ut, as a term of comparison, we will call minor intervals the fourth ut fa, and all the intervals of the same ut, to any note with B flat; every other interval is major. Take notice that we ought not to take by diefis, the superior note of a major interval, because in that case we should form a superfluous interval; but we must attempt the same thing by B flat, which will give a minor interval. Wherefore we shall not compose in the diefis la, because the sixth ut la, being naturally major, would become superfluous by this diefis; but we must take the note fi B flat, which gives the same force by a minor interval, which returns into the rule.

### Table of INTERVALS.

*For the Formula of Cleffs transposed.*

Space of the Interval.	Minor	Major	Minor	Major	Minor	Major	Major	Minor	Major	Minor	Major
The Notes which give it.	Ut, re, $\flat$	re, mi, $\flat$	mi, fa, $\flat$	fa, $\flat$	fa, $\flat$	sol, la, $\flat$	la, $\flat$	la, $\flat$	fi, $\flat$	fi, ut.	
Name of the Interval.	Second. Term of Comparison.	Second.	Third.	Third.	Fourth.	Fourth.	Fifth.	Sixth.	Sixth.	Seventh.	Seventh.

We here find a table of the twelve sounds of the octave, divided by major and minor intervals, on the which we may transpose the cleff in the following manner, according to the tone or mode in which we chuse to compose.

Having taken one of those twelve notes for tonic or fundamental, we must immediately see if the interval which it makes with ut is major or minor; if 'tis major, diefis's are necessary; if minor, we must use B's flat. If that note be ut itself, the interval is null, and we want neither diefis's or B's flat. To determine now how many diefis's or B's flat are wanting, let  $a$  be the number which expresses the interval of ut in the note in question.

$$\bar{a} \text{ — } 1 + 2$$

The form by diefis's will be  $\frac{\bar{a} - 1 + 2}{7}$  and the remainder will give

give the number of diesis's, which we ought to place at the cleff.

The formula by B's flat will be  $\frac{\bar{a}-1+5}{7}$ , and the rest will be the number of B's flat which we must place to the cleff.

I will, for instance, compose in la a major mode. I immediately see that diesis's are wanting, because la makes a major interval with ut. The interval is a sixth, whose number is 6, I remove 1, I multiply the remaining 5 by 2, and from the product 10 rejecting 7 as often as possible, I have the remainder 3, which marks the number of diesis', with which I must number the cleff for the major tone of la.

If I wish to take fa, a major mode, I see by the table that the interval is minor, and that in consequence B's flat are necessary. I take away then 1, from 4 the number of the interval, I multiply the remaining 3 by 5, and from the product 15, throwing away 7 as often as possible, I have 1 remaining, that is a B flat, which I must place to the cleff.

We see by this means that the number of diesis's or B's flat can never exceed six, since they must be the remainder of a division by seven.

For the minor tones we must still use the same forms as that of the major, not on the tonic, but on the note, which is a minor 3d above this same tonic, on its mediant.

So, to compose in si a minor mode, I will transpose the cleff as for the major tone of re. For fa, a minor diesis, I will transpose it as for la major.

Musicians determine the transposition only by force of custom, but the rule which I give is demonstrated, general, and without exception.

**COMARCHIOS**, A kind of appellation for the flute in the ancient music of the Greeks.

**COMMA**, A small interval, which in some cases is found between two sounds, produced under the same denomination, by different progressions.

We distinguish three kinds of commas. First, the minor, the computation of which is from 2025 to 2048, which is the quantity by which the si diesis fourth 5th of the sol diesis, taken as a major third of mi, is surpassed by the natural ut which corresponds to it. This comma is the difference of the major and middle semitone.

Secondly, The major comma is that which is placed between the mi produced by triple progression, as a fourth fifth, beginning by ut and the same mi, or its respondent, considered as a major third of that same ut. Its numerical powers are from 80

M

to

to 81. This is the ordinary comma, and it is the difference between the major and minor tone.

Thirdly, The comma maxima, which is called the comma of Pythagoras, has its computation from 524288. to 531441, and it is the excess of the si diesis produced by triple progression, as the twelfth fifth of the ut on the same ut elevated by its eighth to the correspondent degree.

The musicians understand by comma the eighth or ninth part of the tone, the half of what they call a quarter of a tone. But we may rest assured that they know not what they say, in expressing themselves thus, since, for ears like ours, so small an interval is useless, unless in calculation. (Vide INTERVAL.)

COMPAIR, The compair tones in church-music, are the authentic and the plagal which answers to it. So, the first tone is compair with the second, the third with the fourth, and so on. Every equal tone is compair with the unequal that precedes it.

COMPLEMENT Of an interval, is the quantity which is wanting to it to arrive at the octave, so the second and seventh, the third and sixth, the fourth and fifth, are complements one of the other. When we treat of one interval only, complement is the same thing with the general variation of notes. In regard to their kinds, the major is complement of the minor, the superfluous of the diminished, and so reciprocally. (Vide INTERVAL.)

COMPOS'D, This word has three meanings in music; two in regard to the intervals, and one to the measure.

I. Every interval which passes the extent of the Octave, is a compos'd interval, because by removing the octave, we simplify the interval without changing it. For instance, the ninth, the tenth, and the twelfth, are compos'd intervals; the first, of the second and eighth; the second, of the third and eighth; the third, of the fifth and eighth, &c.

II. Every interval which can be musically divided into two intervals, may be considered as compos'd. By this means, the fifth is compos'd of two thirds; the third of two seconds; the major second of two semitones; but the semitone is by no means composed because it can neither be divided on the gamut or by notes. 'Tis the sense of the discourse which out of the two foregoing acceptations must determine that according to which an interval is composed.

III. We call composed measures, all those which are expressed by two cyphers. (VIDE MEASURE.)

TO COMPOSE, To invent new music, according to the rules of the art.

COMPOSER, He who composes music, or forms the rules of composition. Under the word composition, may be seen the detail of



of knowledge, necessary for the art of composing. This is not yet sufficient without a genius to put it into execution. Whatever efforts we may make, whatever acquisitions we may have, we must still be born to the art, otherwise our works can never mount above the insipid. It is with the composer as with the poet. Nature herself must have form'd him so. What I would express by genius is by no means that strange capricious taste, which spreads on all sides uncouth and idle difficulties, which knows not how to ornament its harmony but by dint of dissonances, contracts and confusion, 'Tis an inward flame which burns, torments the composer, spite of himself, which continually inspires him with airs new, and always agreeable, with expressions lively, majestic, and which touch the heart, with a harmony pure, affecting, and forcible, which adorns the air without obscurity. 'Tis this divine guide which led Correlli, Vinci, Perez, Rinoldo, Jomelli, Durante, more ingenious than all the rest, into the sanctuary of harmony; Leo, Pergolesi, Haffé, Terradeglias, and Galuppi, into that of taste and expression.

**COMPOSITION**, Is the art of inventing and writing airs, of accompanying them with a suitable harmony; in a word, to make a complete piece of music with all its parts.

The knowledge of harmony and its rules, is the foundation of composition. Without doubt, we ought to be skill'd in filling concords, preparing and avoiding dissonances, finding fundamental basses, and possessing every other trifling elementary knowledge; for, with the rules of harmony only, we are no more advanced in the knowledge of composition, than an orator with those of the Grammar. I will not say, that it is also necessary to understand well the stave, and character of the voice and instruments; the airs which are easy or difficult of execution; what forms, and what does *not* form any effect; to feel the character of the different measures, and that of the different modulations; to apply the one or the other always à propos; to know all the particular rules established by agreement, taste, caprice or pedantry, as the fugues, imitations, constrain'd subjects, &c. All these things are nothing more than preparatives to composition; but we must discover in ourselves the beautiful airs of the greater harmony, the painting, the expression; in a word, we must be capable of collecting and forming the plan of a whole work, following its correspondences of every kind, and making ourselves acquainted with the mind of the poet, instead of amusing ourselves with running after the words. 'Tis with reason that our musicians have given the name of words to the poems which they set to music. We clearly see, by their method of rendering them, that they are but words to them. It seems,

particularly these last years, that the rules of concord have abolished, or at least rendered neglected every other; and that harmony has gained its facility only at the expence of the art in general. All our artists understand the art of filling up their music, but very few its composition.

Though the fundamental rules of counter-point be always the same, they yet have more or less rigour, according to the number of divisions; for in proportion to the increase of parts, the composition becomes more difficult, and the rules are less severe. The composition in two parts is called duo, when the two parts tune equally, that is, when the subject is equally divided between them. If the subject is in one part alone, and the other only acts in accompaniment, the first is then called recital, or solo; and the other, accompaniment, or thorough Bass, if it be a bass. It is the same thing with the trio or composition in three parts, with the quatuor, the quinque, &c. (Vide those words.)

The name of composition is also given to the pieces of music themselves, made in the rules of composition; for which reason, the duo, trio, quatuor, which I have just mentioned, are called compositions.

We compose either for the voices only, or for instruments, or for the instruments and the voice. Church-music and songs are the only compositions which are for the voice alone, and to those also some instruments are very often joined for the sustaining of them. Instrumental compositions are for the choir of the orchestra; and in that case they are called symphonies and concerts, or for some particular kind of instrument, and they are then called pieces, sonatas. (Vide those Words.)

In regard to the compositions intended for the voice and for the instruments, they are generally divided into two principal sorts, viz. Latin or church-music, and French music. The music destined for the church, whether psalms, hymns, or antiennes, generally bear the name of molets. (Vide MOLET.) The French music is also divided into theatrical music, such as our operas, and in that of a private room, as our cantatas or cantatillas. (Vide CANTATA, OPERA.)

The latin composition is imagined in general to require the most knowledge and rules, and the French the most genius and taste.

In a composition the author has for his subject, the sound physically considered, and for his object the pleasure only of the ear, or now and then he rises to imitative music, and seeks to touch his hearers by moral effects. In the first case, it is sufficient for him to seek pleasing sounds and agreeable concords; but in the second he should consider music by its connection with the accents,

cents of the human voice, and by the possible conformities between sounds harmonically combined and imitable objects. Under the article opera, may be found some thoughts on the methods of elevating and ennobling this art, by making of music a language more eloquent than the discourse itself.

**CONCERT**, An assembly of musicians who perform pieces of vocal and instrumental music. This word concert is seldom used for an assembly of less than seven or eight musicians, or a piece of music of many parts. In regard to the ancients, as they were ignorant of the counter-point, their concerts were executed only in unison or in the octave, and they seldom had any other but in their theatres and temples.

**SPIRITUAL CONCERT**, A concert which supplies the place of the public spectacle at Paris, during the time that the other amusements are shut up. It is established at the Château des Thuilleries, the band is very numerous, and the hall beautifully decorated. They perform their molets and symphonies, and amuse themselves now and then with sporting in Italian airs.

**CONCERTANT**, Concertant parts are those, according to the Abbé Bropard, which have something of recital in a piece or concert, and this word serves to distinguish them from those parts which contain singing only. If this has ever been its sense, it is now obsolete. We say at present reciting parts, but we use *that* of concertant in speaking of a number of musicians who perform in a concert, and we then say, "We were five and twenty concertants." "An assembly of eight or ten concertants."

**CONCERTO**, An Italian word Frenchified, which signifies in general, a symphony made to be performed by the whole orchestra; but we call more particularly by the name of concerto, a piece made for some separate instrument, which plays alone at set times with a simple accompaniment, after a beginning by the whole orchestra, and the piece continues always thus alternatively between the same instrument reciting, and the orchestra in chorus. In regard to the concertos, where all is played in Rippiéno, and where no instrument recites, the French call it sometimes trio, and the Italians *sinfonie*,

**CONCINNOUS**, I will not make any digressions on the explanation of this word, taken as the suitable connection of all the parts of a work between themselves, and with the whole, because it is a sense that is seldom given to it in music. 'Tis to the execution generally that this term is applied, when the concertants are perfectly in concord, whether for the intonation or the measure, when they all appear to be animated with the same soul, and when the execution affords faithfully to the ear, all that the eye beholds on the partitions.

The

The concinnous does not only depend on the ingenuity with which each one reads his part, but on the understanding with which he feels its particular character, and its union with the whole; whether for composing with exactness, for following the precision of the movements, or for catching the moment and variety of the *bold*, and *sweet*; or lastly, for adding to the mark'd ornaments, those which are so necessarily supposed by the author, that no one can be permitted to omit them. 'Tis in vain for a musician to be ingenious; there can be nothing concinnous but from the knowledge of the music which he executes, and from the mutual understanding that he maintains with others; for it would be impossible to place a good *concinnous* in a concert of deaf men, or in a piece of music whose stile is perfectly opposite to those who execute it. Music-masters, conductors and managers of the orchestra, ought particularly to guide, restrain, or forward their musicians, in fixing throughout a good concinnity, and this is what always forms a good first violin, by a particular force in the execution, which impresses strongly its character on every ear. The reciting voice is subject to the bass and measure; the first violin should always attend to and follow the voice. The symphony ought to be attentive to the violin; and lastly, the harpsichord, which we suppose to be held by the composer, should be the true and first direction of the whole.

In general, the more character the stile, periods, phrases, and harmony possess, the more easy is the concinnous to catch, because the same idea impressed with life on every mind, presides over the whole of the execution. On the contrary, when the music is silent, and we feel nothing more than a continuance of notes without an unison, there is no general object to which each one connects his part, and the execution proceeds always in a disagreeable strain. For this reason it is, that the French music is never concinnous.

**TO CONFINE THE HARMONY,** Is to collect each part within the smallest intervals that can be possible. For instance, to confine this concord, ut, sol, mi, which comprehends a tenth, we must vary it thus, ut, mi, sol, and in that case it contains no more than a fifth. (Vide CONCORD, VARIATION.)

**CONCORD,** An union of two or more sounds uttered at once, and forming together a general harmonic.

The natural harmony produced by the resounding of a sonorous body, is composed of three different sounds, without reckoning their octaves, the which form together the most agreeable and most perfect concord that can be heard; from whence, on account of its excellence, it is called a perfect concord. Thus, to render the harmony complete, every concord must be at least composed of three sounds. The musicians also find in the trio,

an

an harmonic perfection, either because the concords are therein entirely employed, or because in the occasions, where they do not employ them entirely, they have the art of giving a change to the ear, and produce a contrary sensation, by presenting to it the principal sounds of the concords, in such a manner as to obliterate entirely the others. (Vide TRIO.) The octave, however, of the principal sound, producing fresh connections, and new consonances by the complements of intervals, (Vide COMPLEMENT) we generally add that octave to form the concinnity of all the consonances within the same concord. (Vide CONSONNANCE.) Moreover, the addition of the dissonance (Vide DISSONANCE) producing a fourth sound added to the perfect concord, it is absolutely necessary, if we wish to fill the concord, to have a fourth part to express this dissonance. Wherefore the system of concords can never be complete and united but by the means of four parts. We divide the concords into perfect and imperfect. The perfect concord is that which we have just mentioned, which is composed of the fundamental or flat sound, of its third, fifth and eighth: It is sub-divided into major or minor, according to the nature of its third. (Vide MAJOR and MINOR.)

Some authors give the name of perfect also to all the concords, even dissonant, whose fundamental sound is in flat. The imperfect concords are those which retain a sixth instead of a fifth; and in general all those where the flat sound is not the fundamental. These denominations, which were given before the fundamental bass was known, are by no means applicable. Those of direct or varied concords would be much more suitable in the same sense. The concords are again divided into consonant and dissonant. The consonant concords are the perfect concord and its derivatives; every other concord is dissonant. (See the under-written table of each, according to M. Rameau's system.)

## T A B L E

*Of all the Concords admitted into Harmony.*

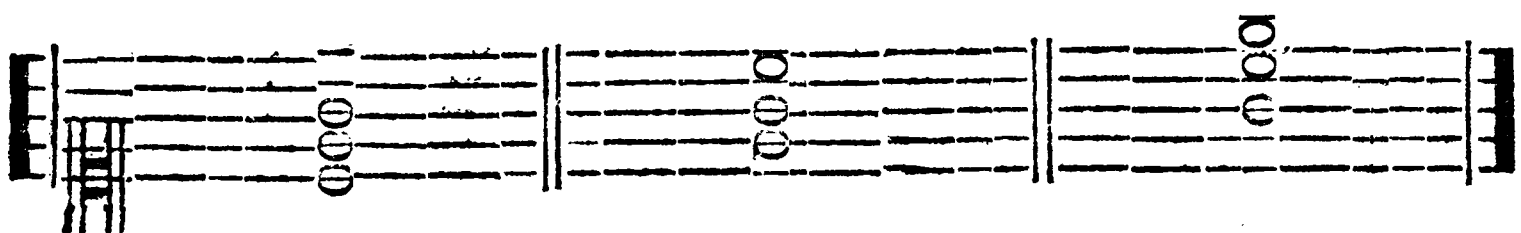
Fundamental Concords.

*Perfect Concord and its Derivatives.*

The fundamental Sound  
in flat.

Its Third in flat.

Its Fifth in flat.



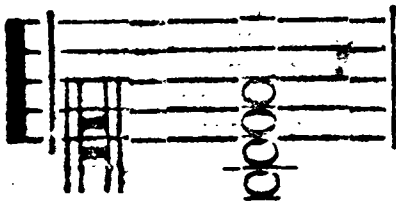
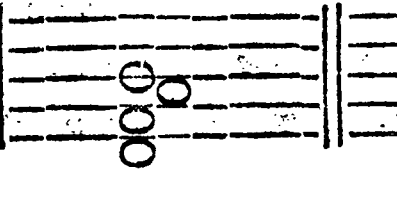
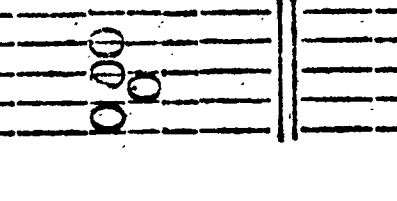
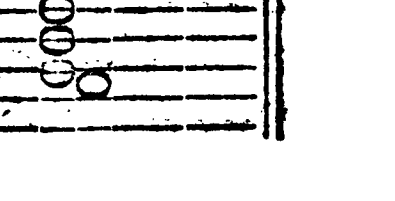
Perfect Concord.

Concord of Sixth.

Concord of Sixth-fourth.

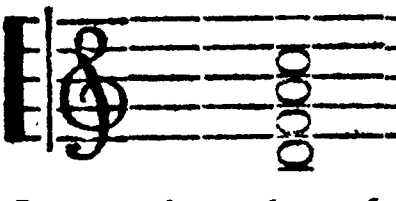
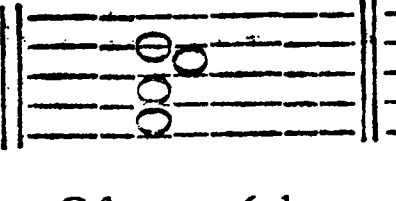
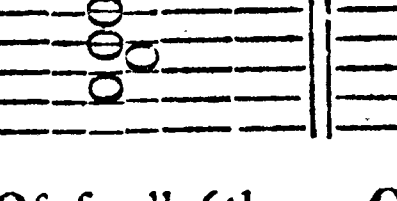
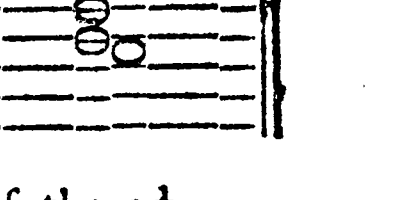
This concord constitutes the tone, and is formed only on the tonic: Its third may be either major or minor; and it is that which constitutes the mode.

*Sensible or Dominant Concord, and its Derivatives.*

The fundamental Sound in flat.	Its Third in flat.	Its Fifth in flat.	Its Seventh in flat.
			
Sensible Concord.	False Fifth.	Small Sixth-major.	Triton.

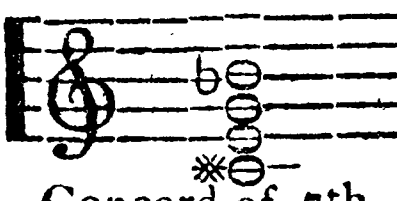
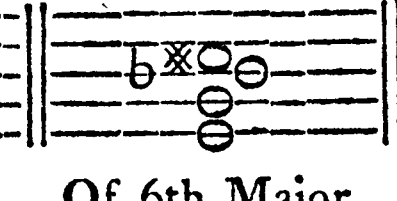
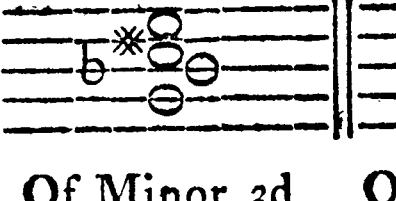
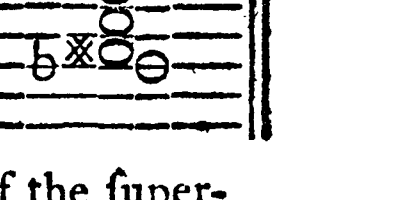
No one of the sounds of this concord can be varied.

*Concord of the Seventh and its Derivatives.*

The fundamental Sound in flat.	Its Third in flat.	Its Fifth in flat.	Its Seventh in flat.
			
Concord of the 7th.	Of great 6th.	Of small 6th Minor.	Of the 2d.

The third, fifth, and seventh may be varied in this concord.

*Concord of the diminished Seventh, and its Derivatives.*

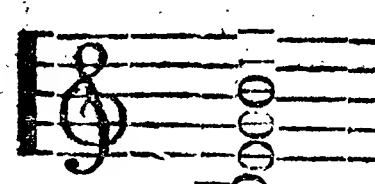
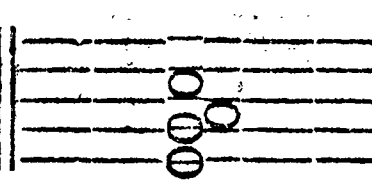
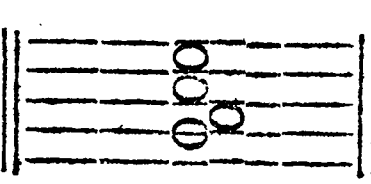
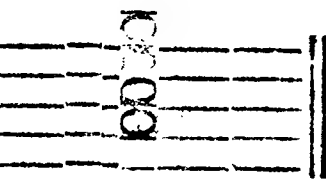
The Fundamental Sound in Flat.	Its Third in flat.	Its Fifth in flat.	Its Seventh in flat.
			
Concord of 7th diminished.	Of 6th Major and false Fifth.	Of Minor 3d and Triton.	Of the super- fluous 2d.

No one of the Sounds of this concord can be varied.

Concord

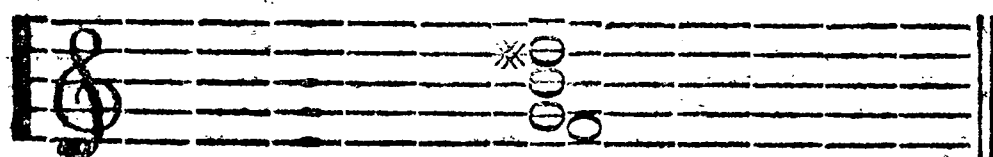


### Concord of the Sixth added, and its Derivatives.

The fundamental Sound in flat.	Its Third in flat.	Its Fifth in flat.	Its Sixth in flat.
			
Concord of the 6th added.	Of smaller 6th added.	Of the 2d added.	Of the 7th added.

I join the word *added* throughout this work, to distinguish this concord and its variations from the similar productions of the concord of the seventh. This last variation of the seventh added, is not admitted by Mons. Rameau, because this variation forms a concord of the seventh, and the concord of the seventh is fundamental. This reason seems to have little weight. We ought not then, on this plan, to admit the greater sixth, as a variation, since, in the particular principles of Mons. Rameau, this same concord is often fundamental. But the practice of the greatest musicians, and even his own, contradicts the execution which he wishes to establish.

### Concords of the superfluous Sixth.

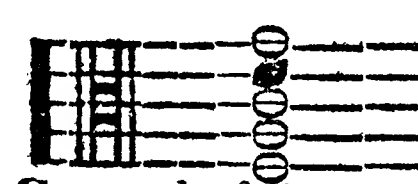
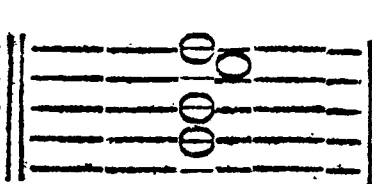
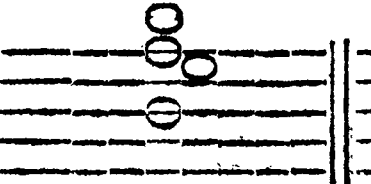
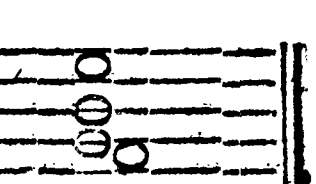


This concord has no variation; and no one of its sounds can undergo a change. 'Tis properly no more than a concord of small major sixth diesis'd by accident, and in which we substitute sometimes the fifth for the fourth.

### Concords by Supposition.

(Vide SUPPOSITION.)

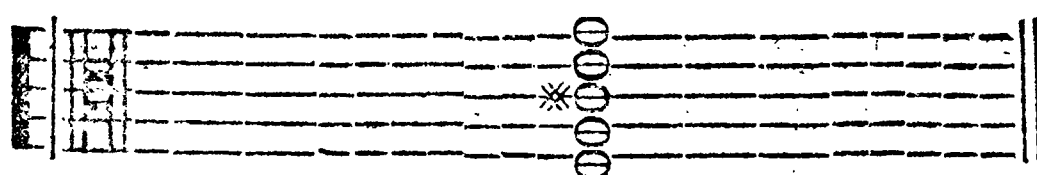
### Concord of the Ninth, and its Derivatives.

The supposed Sound in flat.	The fundamental Sound in flat.	Its Third in flat.	Its Seventh in flat.
			
Concord of the 9th.	Of the 7th and 6th.	Of the sixth- fourth and 5th.	Of 7th and 2d.
	N		This

This is a concord of the Seventh, in the which we add a fifth found to the third beneath the fundamental.

We generally remove the seventh, i. e. the fifth of the fundamental found, which here is that note marked in black: in this case, the concord of the ninth may vary in removing again from the accompaniment, the eighth of the note which we carry to the bass.

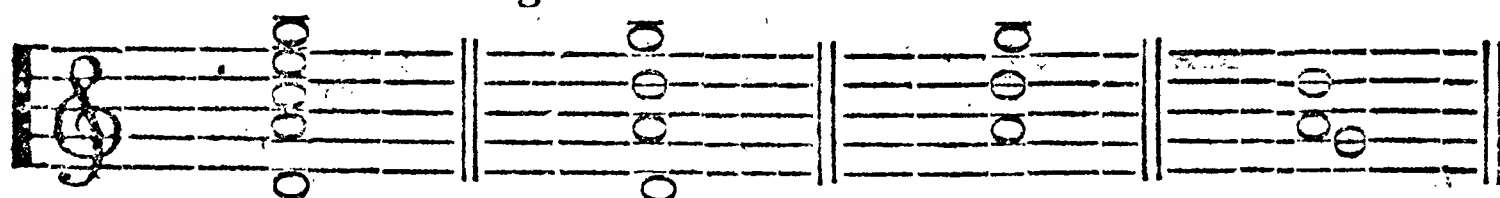
### Concord of the superfluous Fifth.



This is the sensible concord of a minor tone, below which we make the mediant understood; for which reason, 'tis a true concord of the ninth. But it does not vary on account of the diminished fourth, which the supposed found carried into sharp, would produce with the sensible note, which fourth is an interval expelled from harmony.

### Concord of the Eleventh or Fourth.

The supposed Sound in flat.	Idem, by remov- ing two Sounds	The fundamental Sound in flat.	Its Seventh in flat.
--------------------------------	-----------------------------------	-----------------------------------	-------------------------



Concord of the 9th  
and 4th.

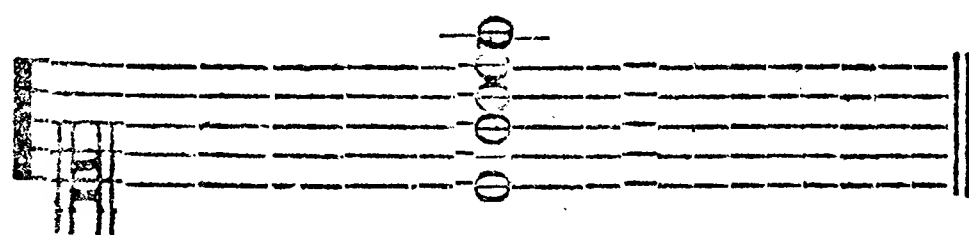
Concord of the  
4th.

Of 7th and  
4th.

Of 2d and  
5th.

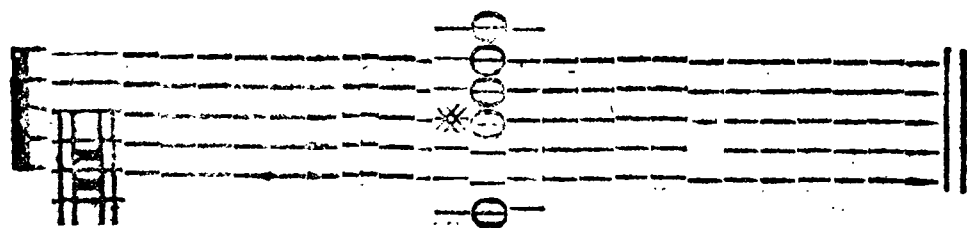
This is a concord of the seventh, below which we add a fifth found to the fifth of the fundamental. We never strike this concord full, on account of its duration. Its ninth and seventh are generally removed; and to vary it, this removal is indispensably necessary.

### Concord of superfluous Seventh.



This is the dominant concord, under which the bass forms the tonic.

Concord

Concord of *superfluous* Seventh and Minor Sixth,

This is the concord of the diminished seventh on the sensible note, under which the bass forms the tonic.

These two last concords have no variation, because the sensible note and the tonic must then be heard together in the superior parts, which can never succeed.

Though all the concords in this table be full and complete, as was necessary to shew all their elements, yet it is not laid down that we must use them thus: we cannot always, and we ought not often. In regard to the sounds which ought to be preferred according to the place and custom of concords; it is in this exquisite and necessary choice, that the grand art of the composer consists. (Vide COMPOSITION, MELODY, EFFECT, EXPRESSION, &c.)

*End of the Table of Concords.*

We will shew, under the words *Harmony, Fundamental Bass, Composition, &c.* the method of employing all these concords, to form by them a regular harmony. I will only here add the following observations.

I. 'Tis a very great mistake to imagine that the choice of variations in the same concord can be indifferent, either for the harmony or the expression. There is not one of these variations but has its proper characters. Every body must perceive the contrariety which is found between the sweetness of the false fifth, and the sharpness of the triton, and still one of these intervals is varied from the other. It is the same thing with the diminished seventh and superfluous second, with the general second and the seventh. Who does not know the sonorous difference between the fifth and the fourth? The concord of greater sixth and that of small minor sixth, are two representations of the same fundamental concord: But how much is the one more harmonious than the other! The concord of small major sixth, on the contrary, is much more brilliant than that of the false fifth. And to speak only of the most simple of all the concords, reflect on the dignity of the perfect concord, the sweetness of the

the concord of sixth; and the flatness of that of sixth-fourth; all these are however composed of the same sounds.

The superfluous intervals, in general the diesis's above, are proper on account of their duration, to express rage, anger, and the sharper passions. On the contrary, the B mollare's in sharp, and the diminished intervals, form a plaintive harmony, which touches the soul. There are a multitude of similar observations, which, when a musician knows how to manage them, render him master of the affections of those, who listen to him.

II. The choice of simple intervals is not less important than that of concords, in regard to the place where they should be employed. For instance, 'tis below where the fifths and octaves must in preference be placed above the thirds and sixths. Transpose this order, and you will demolish the harmony, tho' you leave the same concords.

III. Lastly, we may render the concords still more harmonious by uniting them by smaller intervals, much more suitable to the capacity of the ear than the larger. This is what we call to confine the harmony, and which so few musicians are skilled in practising. The boundaries of the diapason of the voice are another reason for confining the choirs. We may be assured, that a choir is ill composed when the concords are scattered, when the parts have a squeaking note, lose their diapason, and are so removed one from the other, as to seem to have no kind of connection between themselves.

We call also by the name of concord, the condition of an instrument whose fixed sounds are connected together in the exact justness which they ought to preserve. In this sense, we say, that an instrument is, or is not in concord or tune; that it keeps or does not keep its concord. The same expression is used in regard to two voices which sing together, for two sounds, which are heard at a time, whether in unison or counterpart.

**DISSONANT CONCORD, FALSE CONCORD, CONCORD UNTRUE,** Are things so different, that they must not be confounded. The dissonant concord is that which contains some dissonance. An untrue concord, that whose sounds are ill adapted, and do not preserve together the justness of the intervals. False concord, that which disgusts the ear because it is ill composed, and the sounds, tho' just, do not form therein an entire harmonic.

**CONCORDANT, or, BARYTON,** is that part of music which is fixed in the middle, between the tenor and bass. The  
name

name of concordant is no longer in use, but in church-music, no more than the part which it denotes. Every where else, this part is call'd common pitch of bass, and is confounded with the bass. The concordant is properly the part which in Italy is called tenor. (Vide PARTS.)

**CONCOURSE,** An assembly of musicians and authorised connoisseurs, in the which a vacant place of music-master or organist is gained, by the majority of votes, by him who has composed the best molet, or who has distinguished himself by the best execution.

The concourse was in use formerly in a great number of cathedrals; but in these partial times, when the spirit of intrigue engrosses the generality of places, it is clear that this must gradually be abolished, and that in its place they have substituted methods more easy, by giving to favour or interest, the rewards due to ingenuity and merit.

**CONJOINT,** A conjoint tetrachord is, in ancient music, that whose flattest chord is in unison with the sharpest chord of the tetrachord, which is immediately below it; or whose sharpest chord is in unison with the flattest of the tetrachord immediately above it. So, in the system of the Greeks, all the five tetrachords are conjoint on some side that is first. The tetrachord meson is conjoint to the tetrachord hypaton. 2dly. The tetrachord synnêménon is conjoint to the tetrachord meson. 3dly, The tetrachord hyperboleon is conjoint to the tetrachord diazeugmenon; and as the tetrachord, to which another was conjoint, was reciprocally conjoint to that, this would have made six tetrachords in all, had not the tetrachord meson, being conjoint by its two extremities, been taken twice for once.

Amongst us, conjoint is said of an interval or degree. We call conjoint degrees, those which are so disposed between themselves, that the sharpest sound of the inferior degree becomes in unison with the flattest sound of the superior. Moreover, neither of these degrees conjoined must be divided into other smaller degrees, but they themselves must be as small as possible, viz. those of a second. Wherefore, these two intervals ut re and re mi are conjoint, but ut re and sol fa are not so, for want of the first condition, ut mi and mi sol are not also, for want of the second.

An extent by conjoint degrees signifies the same thing as a diatonic extent. (Vide DIATONIC DEGREE.)

**CONNECTED,** A term in church-music. (Vide MIXT.)

**CONSONANCE,** Is, according to the Etymology of the Word, the effect of two or more sounds heard at a time; but the signification of this word is generally restrain'd to intervals formed by two sounds, the concord of which is pleasing to the ear,

ear, and 'tis in this sense, that I shall speak of it under this head.

From this infinity of Intervals which can divide the sounds, there is but a small number, which form a consonance; all the rest disgust the ear, and are therefore called dissonances. 'Tis not fixt absolutely that many of these may not be employed in harmony, but they are fixt only with those precautions, of which the consonances, always agreeable in themselves, are not equally in want. The Greeks admitted five consonances only, i. e. The octave, the 5th, the 12th, which is the replication of the 5th, the 4th, and the 11th, which is its replication. We add to these, the 3ds and 6ths major and minor, the double and triple octaves, and, in short, the different replications of all these without exception, according to the whole extent of the system.

We distinguish the consonances, as perfect or just, whose interval has no variation, and as imperfect, those which may be major or minor. The perfect consonances are the 8th, 5th, and 4th; the imperfect, the 3ds and 6ths.

The principal character of consonances is drawn from their production in a similar sound, or, if we will, from the rustling of the chords. Of two chords, in full concord, forming together an interval of octave, or of 12th, which is the octave of the 5th, or of 17th major, which is the double octave of the major 3d; if we make the flattest sound, the other shakes and resounds. In regard to the major and minor 6th, the minor 3d, the simple major 5th and 3d. which are all combinations of the precedent consonances, they are found, not directly, but between the different chords that shake in the same sound.

If I touch the chord ut, the chords ascending to its octave ut, to the 5th sol of that octave, to the third mi of the double octave, even to the octaves of all these, will all shake, and resound at a time; and if the first chord should be alone, we should still distinguish all these sounds in its resounding. Here then are the octave, the major third, and the fifth direct. The other consonances are found also by combinations, viz. the minor third from mi to sol; the minor sixth from the same mi to the ut above; the fourth from sol to the same ut; and the major sixth from the same sol to the mi which is above it. Such is the generation of all the consonances. It would be necessary to give an account also of the phenomena.

First, The shaking of the chords is explained by the action of the air, and the concurrence of vibrations. (Vide UNISON) Secondly, The sound of a chord must be always accompanied by its harmonics, (Vide that word.) This appears a propriety of the sound, which depends on its nature, which is inseparable from it, and which can be explained only by hypothesis's, which  
are



are not without their difficulties. The most ingenious that has yet been hit on, on this matter, is, without doubt, that of Monf. de Mairan, from which M. Rameau says, he has greatly profited.

Thirdly, In regard to the pleasure which consonances afford the ear by the exclusion of every other interval, we see from thence clearly their source in their generation. All consonances arise from a perfect concord, produced by one only sound, and the perfect concord reciprocally is formed by an assemblage of consonances. It is therefore natural, that the harmony of this concord should be communicated to its parts, that each of them should partake therein, and that every other interval which does not form a part of this concord should not partake in it. Nature, moreover, which has endowed the objects of every sense, with qualities proper for flattering it, has chosen, that one sound, whatever it be, should be accompanied with their agreeable sounds, as she has willed, that one ray of light should be always formed of the finest colours. But if we remove this question, and enquire whence arises the pleasure which a perfect concord causes to the ear, whilst it is disgusted with the concurrence of every other sound, what can we answer to that, unless to demand in our turn, why green delights the eye more than grey? and why the odour of the rose is pleasing, whilst the poppy's smell disgusts?

I don't deny, but that the physicians have explained all this, and what is there they do not explain? But how much do these explanations depend on conjecture, and how little solidity do we find in them when they are nearly examined? The reader will judge of this by the exposition of the chief of them, which I shall endeavour at in as few words as possible.

They say, that when the sensation of the sound is produced by the vibrations of the sonorous body, propagated as far as the tympanum by those which the air receives from this same body, when two sounds are heard together, the ear is affected at the same time with their different vibrations. If these vibrations are isochronic, that is to say, if they agree in beginning, and finishing at the same time, this concurrence forms the unison, and the ear, which catches the concord of these equal and justly concordant returns, is agreeably affected by them. If the vibrations of one of the two sounds are double in duration to those of the other, during each flattest vibration, the sharp will make precisely two, and at the third they will set off together. Wherefore every two times each unequal vibration of the sharp concurs with every vibration of the flat, and this frequent concordance, which constitutes the octave, less sweet in their opinion than the unison, will be more so than any other consonance.

nance. The 5th comes after, one of whose sounds forms two vibrations, whilst the other forms three, so that they agree only in every 3d vibration of the sharp; next comes the double octave, one of whose sounds forms four vibrations, whilst the other forms but one, agreeing only in every fourth vibration of the sharp: as to the fourth, the vibrations answer each other every fourth in sharp, and every third in flat; those of the major third are as 4 and 5; of the major sixth as 3 and 5; of the minor third as 5 and 6; and of the minor sixth as 5 and 8. Above those numbers there are only their multiples, which produce consonances, that is to say, the octaves of the former: all the remaining parts are dissonant.

Others finding the octave more agreeable than the unison, and the fifth more agreeable than the octave, give it as a reason, that the equal returns of the vibrations in the unison, and their too frequent concurrence in the octave, confound, identify the sounds, and prevent the ear from perceiving their diversity. That it may feel the sounds with pleasure, they say that it is necessary for the vibrations to accord by intervals, but not for them to confound each other too often; otherwise, instead of two sounds, we should think to hear one only, and the ear would lose the pleasure of the comparison. 'Tis in this manner, that from the same principle we deduce, according to our liking, the pro and con, just as we imagine that experience requires.

But in the first place, all this explanation is, as we may see, founded on the pleasure only that we pretend the soul receives thro' the organ of hearing, from the concurrence of vibrations, which, at bottom, is nothing more than a mere supposition. Moreover, we must again suppose, to authorise this system, that the first vibration of each of the two sonorous bodies begins exactly with that of the other; for, however little one may precede, they no longer concur in a determined connection, perhaps even they can in no case concur, and, consequently, the sensible interval must be subjected to change; the consonance could no longer exist, or, at least, would be entirely different. Lastly, we must suppose, that the different vibrations of the two sounds of a consonance strike the organ without confusion, and transmit to the brain, the sensation of the concord, without a mutual injury: a thing difficult to conceive, and of which I shall have occasion to speak elsewhere.

But, without disputing on so many suppositions, let us see what ought to follow from this system. The vibrations or sounds of the last consonance, which is the minor third, are as 5 and 6, and its concord is very agreeable. What then should naturally result from two other sounds, whose vibrations were between themselves as 6 and 7? A consonance, a little less harmonious, I confess,

confess, but still very agreeable, on account of the small difference of their calculations, for they differ a 36th only. But let me be told how it can happen that two sounds, the one of which forms five vibrations, whilst the other makes six, can produce an agreeable consonance; and that two sounds, one of which makes six vibrations, whilst the other forms seven, produce a disagreeable dissonance. How can it be, that in one of these connections the vibrations agree from six to six, and my ear is delighted; whilst in the other they agree from seven to seven, and my ear is disgusted? I will again enquire how it happens, that after this first dissonance, the duration of the others does not increase in proportion to the composition of their connection? Why, for instance, is not the dissonance which results from the connection of 89 to 90, much more disgusting than of 12 to 13? If the more or less frequent return of the concurrence of vibrations was the cause of the degree of pleasure or pain which the concords afford me, the effect must be proportionate to this cause, and I cannot find the least proportion in them.—This pleasure and pain then cannot be derived from thence.

It still remains to pay attention to the alterations of which a consonance is susceptible, tho' these alterations misplace entirely the periodical concurrence of vibrations; and the concurrence itself becomes more scarce in proportion as the alteration is less. It remains to consider that the concord of the organ or harpsichord can offer to the ear nothing more than a cacophony, so much the more disgusting, as these instruments are more in tune, since, except the octave, there is found no other consonance in its exact connection.

Can one say, that an approaching connection is supposed to be entirely exact, that it is received as such by the ear, and that it supplies by instinct whatever is wanting to the justness of the concord? In that case, I enquire the cause of this inequality of judgment and perception, thro' which it admits connections more or less approaching, and banishes others according to the different nature of consonances? In the unison, for instance, the ear can supply nothing: It is either just or false; there is no medium. In the same manner in the octave also, unless the interval be exact, the ear is disgusted; it admits no approximation. For what reason does it admit more in the fifth, and less in the major third? An explanation vague, opposite to the principle which should be established, and without proof, can give no reason for these differences.

The philosopher, who has given us some principles of the acoustic, laying aside all these concurrences of vibrations, and renewing on this point the system of Descartes, gives a reason for the pleasure which consonances cause to the ear by the simplicity of

of connections which are between the sounds that form them. According to this author, and Descartes also, the pleasure diminishes in proportion as these connections become more composed, and when the mind partakes in them no more, they are veritable dissonances; wherefore it is an operation of the mind which they take as the principle of an harmonic sentiment. Moreover, though this hypothesis may agree with the result of the first harmonic divisions, and tho' it may extend itself even to other phenomena that are discovered in the fine arts, as it is subject to the same objections as the preceding, it is not possible for reason to render a satisfactory account of it.

That of all, which appears the most satisfactory, has for its author *Monf. Estéve*, of the Royal Society of Montpélier.-- Here are his reasonings thereon:

The sentiment of sound is inseparable from that of its harmonics; and since every sound bears its harmonics, or rather its accompaniment with it; this same accompaniment is in the order of our organs. There is in the most simple sound, a gradation of sounds, which are sharper and weaker, which sweeten, by their variety, the principal sound, and render it lost in the great velocity of the higher sounds. Here then we see the explanation of a sound; the accompaniment is essential to it, and forms its sweetness and its melody. Wherefore, every time that this sweetening, this accompaniment, these harmonics are enforced, and better disclosed, the sounds will be more melodious, the varieties better sustained. This is a perfection, and the soul ought to be sensible of it.

These consonances, moreover, have this propriety, that the harmonics of each of the two sounds, concurring with the harmonics of the other, their harmonics are mutually sustained, become more sensible, have a longer duration, and by this means, make the concord of sounds which produce them much more agreeable.

To make the application of this principle more evident, *Monf. Estéve* has formed two tables, the one of consonances, and the other of dissonances, which are in the order of the gamut; and these tables are so disposed, that we may perceive in each the concurrence or opposition of the harmonics of the two sounds which form each interval.

By the table of the consonances, we see that the concord of octave preserves almost all its harmonics, and this is the reason of the identity which we suppose, in the practice of harmony, to be between the two sounds of the octave: we see that the concord of the fifth preserves three harmonics only; that the fourth has only two; and lastly, that the imperfect consonances preserves but one, except the major sixth, which bears two.

By

By the table of dissonances, we see that they preserve no kind of harmonic, except the minor seventh alone, which preserves its harmonic fourth, that is, the major third of the third octave of sharp sounds.

From these observations, the author concludes, that the more concurrent harmonics there are between two sounds, more will the concord be agreeable, and in this consist the perfect consonances.

The more harmonics there are destroyed, the less will the soul be satisfied with its concords: Such are imperfect consonances. Lastly, if it should ever happen that no harmonic is preserved, the sounds will be deprived of their sweetness and melody, they will be disagreeable, and rendered, as it were, thin; the soul will be disgusted with them, and instead of the harmonious sweetness, which it discovered in the consonances, finding nothing but a continued roughness, it must feel a sensation of inquietude very disagreeable, which is the effect of dissonances.

This is, without contradiction, the happiest, most simple and most natural of every hypothesis, but it still leaves something to be wished for the satisfaction of the mind, since the causes which are assigned are not always in proportion to the difference of the effects; as, for instance, it confounds in the same category, the minor third and the minor seventh, as equally reduced to one harmonic only, tho' the one is consonant and the other dissonant, and the effect, to the ear, is as different as possible.

In regard to the principle imagined by Mons. Sauveur, which he made to consist in the strokes, as it can by no means be sustained, and has been adopted by no one, I will not employ it here, as it will suffice to direct the reader to what I have spoken of it under the word Beatings.

**CONSONANT**, A consonant interval is that which gives a consonance, or produces the effect of one, which happens, in certain cases, to dissonances, thro' the force of the modulation. A consonant concord is that which is composed of consonances only.

**CONSTRAIN'D**, This word is applied either to the harmony, the air, or the power of the notes, when, through the nature of the design, we are tied down to a law of uniformity in some one of the three parts. (Vide **BASS CONSTRAIN'D**.)

**TO CONTINUE**, To continue on a syllable, is to prolong it farther than prosody requires, as we do in trills; and to continue on a note, is to make a line therein, or to prolong it until the sensation of the measure be forgotten.

**CONTRA**,

**CONTRA**, A name given formerly to that part which was more generally called Altus, and which, at present, we name Haute Contre.

**CONTRAST**, An opposition of characters. There is a contrast in a piece of music when the movement passes from slow to quick, or from quick to slow; when the diapason of the melody passes from flat to sharp, or from sharp to flat; when the air passes from sweet to bold, or from bold to sweet; when the accompaniment passes from simple to figured, or from figured to simple. Lastly, when the harmony has clear and full alternatives; and the most perfect contrast is that which reunites all these oppositions at the same time.

It is very common for composers, who are barren in invention, to make a wrong use of the contrast, and to seek in that, for the sake of preserving the attention, those resources with which their genius is incapable of finishing them. But the contrast, employed à propos, and managed with propriety, produces an effect particularly admirable.

**CONTRA TENOR**, A name given in the beginning of counter point, to that part, which has since been stiled, tenor only.

**CONTRARY SENSE**, A fault, into which the musician falls, when he renders a different thought from that which he ought. Music, says Mons. D'Alembert, being nothing more than a translation of the words which are set to an air, it is visible, that we can fall into a contrary sense, neither can it be avoided more easily than in a literal translation. Contrary sense, in expression, is when the music is sad instead of being gay, gay instead of being sad, light instead of being heavy, heavy instead of being light, &c. Contrary sense, in prosody, is when we render long syllables short; or short, long; when we do not observe the accent of the language, &c. Contrary sense, in declamation, is when we express, by the same modulations, opposite and different sentiments; when we are more attentive to the words than the sentiments; when we lay a stress on such details as we ought to slide over; and when our repetitions are brought in contrary to nature. Contrary sense, in punctuation, is when a musical phrase is terminated by a perfect cadence in those places where the sense is suspended, or forms an imperfect stop where the sense is concluded. I speak here of contrary senses in the rigour of the word; but a want of expression is, perhaps, more disgusting than all these. I even had rather the music should speak contrary to what it absolutely ought, than that it should produce a confusion of nothing at all.

**CONTRE**



**CONTRE CHANT**, A name given by Gerson, and others, to that which was then more generally called Descant, or Counter-point. (Vide those words.)

**COPIER**, He whose profession it is to copy music.

How great a progress soever the art of typography may have made, we have never been able to apply it to music with so great success as to writing: whether it be because the taste of the mind being more stable than that of the ear, we are not so soon tired with the same books as with the same songs, or by the particular difficulties which the combination of the notes and lines add to the impression of music; for if we draw first the lines, and then the notes, it is impossible to give their relative positions that justness which is necessary; and if the character of each note engrosses a portion of the scale, as in our printed music, the lines are so miserably adjusted together, so great a quantity of characters are required, and the whole produces so disagreeable an effect to the ear, that this method has been abolished with reason, and the engraving has been substituted in its place. But besides the other inconveniencies that engraving is subject to, it has particularly that of augmenting too much or too little the examples or parts; of placing in partition what some would chuse in separate parts; and in separate parts what others would chuse to be in partition; and lastly, of offering to the curious nothing but ancient music, which has passed thro' the hands of half the world. It is certain, that in Italy, the country which produces the greatest variety of music, they have abolished some time the printed note, without the engraving having been able to establish itself; from whence I conclude, that in the opinion of the ingenious, that of the simple copy is the most preferable.

It is of greater importance, that music should be correctly and neatly copied than simply written, because he who reads and reflects in his closet, may easily correct the errors of his book, whilst nothing prevents him from suspending and re-beginning his discourse; but in a concert, where each one sees but his part, and where the velocity and continuance of the execution leave no time for rectifying any error, they are all irreparable; a most sublime piece is often murdered, the execution is interrupted, and even stopped; every thing goes contrary, the effect and unison fails throughout, the hearer is disgusted, and the author discountenanced thro' the error only of the copier.

Moreover, the understanding of a difficult piece of music depends greatly on the manner of its being copied, for besides the neatness in the notes, there are different methods to represent more clearly to the reader, the ideas that we would paint to him, and which he should understand. We often find the copy of one

man more legible than that of another, tho' the latter may prick his notes more agreeably; the cause of which is, that the one wishes to please the eye, whilst the other is attentive to more serviceable endeavours!

The most ingenious copier is he whose music is executed with the most ease, without the musicians perceiving ever the reason why.—All this has persuaded me that I should not compile an useless article, if I demonstrated in brief an account of the duties and cares of a good copier. Every thing that tends to facilitate the execution, is by no means indifferent in the perfection of an art, of which it is always the most material beauty. I feel how much I shall injure myself if my works are compared with my rules; but I am not ignorant that he who seeks the public utility, should never have a remembrance of his own. As a man of letters, I have spoken of my condition all the evil I think of it; I have composed French music, and love only the Italian; I have shewn all the disadvantages of society, at the time when it gave me a sincere pleasure; as a bad copier, I here demonstrate the laws by which the ingenious are directed. O truth! my interest never prevailed in opposition to thee, and may it never in any respect erase the adoration which I owe to thee!

I must primarily suppose, that the copier is possessed of all the knowledge necessary to his profession. I even suppose him endowed with the talents necessary for a superiority in its performance. What are these talents, and what is this knowledge? Without absolutely delineating them, I can, under this head, give a sufficient idea of them. All that I am privileged to say here, is, that the composer who thinks himself ingenious, may be very far from being sufficiently so to copy correctly the composition of another.

As written music, particularly in partition, is made to be read by concertants at a distance, the chief thing to be observed by the copier, is to make use of the convenient materials for rendering his notes most neat and legible. For this reason, he should chuse strong fair paper, rather thin, and which does not sink; that which does not require washing is generally preferred, because the washing with allum takes off something of its whiteness. The ink ought to be very black, without either gloss or gum; the ruling neat, equal, and well fixed, but not so black as the notes; on the contrary, the lines should be rather pale, so that the crotchets, double crotchets, pauses, and other smaller signs may not be confounded with them, and that the note may be expressed the fuller. The paleness of the lines, far from preventing the music to be read at a fixed distance, on the contrary, assists it by its neatness, and tho' the line should now and then escape the sight for a moment, the position of the notes very often

often of itself denotes it. The ruling of the paper is but an useless labour. If the copier would gain himself credit, let him rule his paper himself.

There are two formations for ruled paper, one for the French music, the length of which is from the bottom to the top; the other, for the Italian, the length of which is according to the direction of the lines. We may make use of the same paper for the two, by clipping and ruling it contrary ways; but when we buy it ruled we must change the names at the paper-sellers, and ask for Italian paper when we want the French, and French when we want Italian; this *qui pro quo* is of little importance when we are acquainted before-hand.

To copy a partition, we must reckon up the parts which the scale comprehends, and choose paper which has by the page the same number of staves, or a multiple of that number; finally, we should lose no staff, or, at least, as little as possible when the multiple is not exact. The Italian paper has generally ten staves, which divides every page into two columns, each of five staves for the ordinary airs, that is to say, two staves, for the two *trébles* of the violin, one for the fifth, one for the air, and one for the Bass. When we have duo's, or pieces of music for flutes, hautboys, horns, or trumpets, in that case, to that number of staves we can put no more than one column in the page, unless we can find a method for suppressing some useless staff, as that of the fifth, when it is continually in motion on the bass.

Herein, however, are some observations, which we should make to distribute the partitions with exactness. First, whatever number of parts of symphony we may have, it is always necessary that the parts of the violin, as being principal, should be placed at the top of the column, where the eyes may be most easily conveyed. Those who place them at the bottom of all the rest, and immediately on the fifth, for the convenience of the accompaniment, are in an error, without observing that it is ridiculous to see in a partition, the parts of the violin below, for instance, those of the horn which are of a much deeper bass. Secondly, in the whole length of every piece, we ought never to change any thing in the number of the parts, so that every part may have its properties in the same place.

It would be better to leave the staves vacant, or, if there is a necessity, place two parts in some of them, than to extend or diminish the column unequally. This rule is for the Italian music only, for the use of engraving has made the French music more attentive to the œconomy of the space, than to the commodity of the execution. Thirdly, it is only at the greatest extremity that we should place two parts on the same staff, and this is what we ought particularly to avoid in the parts of the violin;

violin ; for, besides that there is much confusion to be feared, there would be an equivocation with the double chord ; we must always also be careful, that the parts do not interfere cross ways, which we could not express on the same stave, in a method clear and legible. Fourthly, the keys being correctly written, and once numbered, should never be repeated any more than the sign of the measure, unless in the French music, when, the columns being unequal, each one could not recollect his parts ; but in the separated parts, we must repeat the clef at the beginning of each stave, were it only to denote the beginning of the lines, on a failure of the column.

The number of staves being thus fixed, we must make a division of the measures, and these measures ought to be all equal in space as well as duration, to measure in some respect the time by the compass, and to guide the voice by the eyes. This space ought to be sufficiently extended in each measure, to receive all the notes which can enter therein, according to its greatest subdivision. It cannot be imagined how great a clearness this case throws on a partition, and in what an embarrassment a neglect of it throws them. If we confine a measure on a crotchet, how can we place the sixteen double crotchets, which, perhaps, another part contains in the same measure. If we confine ourselves to the vocal part, how can we fix the space of the returns ? In a word, if we are attentive only to the divisions of one of these parts, how can we make the divisions of the other parts, often contrary to coincide with them.

It is not sufficient to divide the air into equal measures, we must also divide the measures into equal times. If in each part we proportionate thus the space to the duration, all the parts, and all the simultaneous notes of each part will correspond with a justness which will give pleasure to the eye, and will greatly facilitate the reading of a partition. If, for instance, we divide a measure into four times, into four spaces very equal together, and in each part, if we extend the crotchets, draw the quavers nearer, and confine the semi-quavers in proportion, and each in its space, without wanting to look at one part, in copying another, all the corresponding notes will be more exactly perpendicular than if they had been contronted by writing them, whether between the different measures of the same part, or between the different parts of the same measure.

To the exactness of the connections, we must join as much as possible, a neatness in our signs. For instance, we shall never prick useless notes ; but as soon as we perceive that two notes re-unite, and are in unison, we ought to separate the one from the other, when they are near each other, and on the same clef. In regard to the fifth, as soon as its course is on the octave of  
the

the bass, we must act also in the same manner. An equal attention of not multiplying our signs without a cause, should prevent us from making piano's as a symphony at the beginning of an air, and the forte's when it concludes. Every where else we must write them exactly under the first violin and the bass; and this is sufficient in a partition where all the parts can, and ought to make those their grand object.

Lastly, It is the duty of a copier, when he writes a partition, to correct all the false notes which he may find in the original. I don't mean, by false notes, the faults of the work, but those of the copy which serves as its original. The perfection of his consists in rendering faithfully the ideas of the author; good or ill, that is not his business, since he is neither author or corrector but copier only. It is very true, that if the author has, by mistake, placed one note for another, he ought to correct it: but if this same author has, through ignorance, made an error in the composition, he should leave it. Let him compose better himself if he will or can, and well; but whensoever he copies, he should have an eye to his original. We see by this means, that it is not sufficient for a copier to be a good harmonist, and to understand well the composition, but he should, into the bargain, be well skilled in the different styles, and be conversant in an author by his method, to know what he has, and what he has not composed. There is, moreover, a kind of criticism necessary to restore a passage by the comparison of another, to replace a forte or a dolce where it has been omitted, which is not uncommon in the partitions; even to disunite also phrases improperly joined, and to restore measures before ejected. Knowledge and taste are certainly necessary to re-establish a text in its full purity. It may be said, few copists can perform it: I answer, that it is incumbent on all.

Before I finish what appertains to the partitions, I must speak of the method of collecting the separated parts; a laborious task from many copiers, but simple and easy when we undertake it by method.—For this purpose, we must first reckon carefully the measures in each part, to satisfy ourselves that they are correct. Then we place all the parts one on the other, beginning by the bass, and covering it successively with the other parts in the same order as they ought to have in the partition. We compose the columns of as many staves as there are parts, divide them into equal measures, then placing all these parts thus ranged before us, on the left hand, we first copy the first line of the first part, which I imagine to be the first violin, make a slight mark with the pencil at the place where we stop, and then continue it, being turned back to the right. We copy in the same manner the first line of the second violin, returning to the first where-

ever their course is in unison; then making a mark as before, we change the preceding part to the right, and proceed in the same manner with all the parts one after the other. When we are at the bass, we run over with the eye the whole column, to discover if the harmony is good, if the whole is in concord, and if there are no errors: The first line being made, we take together all the parts which were changed one on the other on the right hand, and we once again change them on the left; they are then found in the same order, and in the same situation, as when they began: we then begin the second column at the pencil mark; we make another mark at the end of the second line, and we continue as before till the whole is completed.

I shall have little to say on the method of drawing a partition into separate parts, for this is the most simple operation of the art, and it will be sufficient to make thereon the following observations. First, we must so compare the length of the pieces to what a page may contain, as never to be obliged to turn on the same piece in instrumental parts, unless there are a great number of measures to reckon, which will afford time. This rule obliges us to begin at the page verso all the pieces, which takes up more than a page, and there are none which fill more than two. Secondly, the *dolce's* and the *forte's* should be marked with the greatest exactness on all the parts, even those where the air begins and finishes, which are not ordinarily on the partition. Thirdly, we ought never to divide a measure from one line to another, but endeavour that there should be always a bar at the end of each stave. Fourthly, all the additional lines which exceed, either above or below, the five of the stave, should by no means be continued, but separated at each note, for fear that the musician, confounding them with those of the stave, should be deceived in his note, and know no longer where he is. This rule is not less necessary in the partitions, and is followed, however, by no French copier. Fifthly, the parts of the hautboy which are drawn on the parts of the violin for a full band, should never be exactly copied as they are in the original, but, besides the extent which that instrument has less than the violin, besides the *dolce's* which it cannot equally perform, besides the velocity which is wanting, or which suits it ill in certain quick passages, the force of the hautboy should be managed to mark the principal notes better, and give a greater accent to the music. If I had to judge of the taste of a symphonist without hearing him, I would give him a lesson on the part of the violin and hautboy; every copier should be skilled in those. Sixthly, the parts of horns and trumpets are sometimes pricked on a different tone from the rest of the air; we must transpose them in the tone, or at least, if we copy them just as they are, we must  
write



write above the titles of the true tonic, Corni in D sol, re; Corni in E la, fa, &c. &c. Seventhly, we must never vary the part of fifth, or of the viol from the cleff of the bass, and its own, and thereon we have another attention to bestow, which is to transpose to the cleff of the viol all the places wherein its course is with the bass: we must never let the viol rise above the parts of the violin, so that, when the bass ascends too high, we must not take down the octave, but the unison, so that the viol may never leave that medium which is suitable to it. Eighthly, the vocal part should never be copied but in partition with the bass, so that the singer may accompany himself, and not have the trouble either to hold his part in the hand, or to reckon his pauses. In the duets and trios, each part of the air ought to contain, besides the bass, its counter part, and when we copy a limited recitative, we should for each instrumental part add to its own the part of the air, to guide it on a default in the measure. Ninthly and lastly, in the vocal parts we must be careful to unite or disunite the chords, so that the singer may clearly see those which belong to every syllable. The partitions which come out of the composer's hands, are very equivocal in this point, and the singer cannot tell, the chief part of the time, how to render the notes suitable to the words. The copier, skill'd in prosody, and who knows exactly the accent of the words and that of the air, determines the division of the notes, and prevents the doubts of the singer. The words should be written exactly under the notes, and very correct in regard to the accent and orthography; but they should have neither stops or commas, as the frequent repetitions being so irregular, render a grammatical punctuation impossible; 'tis for the music to punctuate the words; the copier has no concern therein; for this would be an addition of those signs which the composer is bound to render useless.

I will conclude for fear of carrying this article to too great a length, I have already said too much for a good copist, who is ingenious, and has a taste for his occupation: I can never say enough for others. I will only add a word in finishing: There are several intermediaries between what the composer plans, and what the audience hear. 'Tis the duty of the copier to connect these two terms as near as possible, to mark with precision every thing which should be done, that the music when executed may render to the composer's ear, exactly what was plann'd within his head at the time of the composition.

**CORD or CHORD SONOROUS**, Is every extended Chord from whence a sound can be drawn. For fear of going out of my depth on this article, I will transcribe, in part, that of Mons.

D'Alembert, and add nothing more of my own than what has an immediate connection with sound and music.

“ If an extended chord is struck in some one of its points by  
 “ any power, it will dilate itself to a certain distance from the  
 “ situation in which it before rested, it will then return and  
 “ make vibrations by virtue of the elasticity which its extension  
 “ gives it. If, moreover, the composition of this chord is nat-  
 “ turally elastic, or sufficiently homogenous for the same mo-  
 “ tion to be communicated to all its parts, it will make a sound  
 “ in shaking, and a resounding will always accompany its vi-  
 “ brations. The geométricians have discovered the laws of  
 “ these vibrations, and musicians, those of the sounds which re-  
 “ sult from them.

“ It has been long known by experience, and reasonings fool-  
 “ ish enough, that every thing else being equal, the more a  
 “ chord was extended, the quicker were its vibrations; that on  
 “ an equal extension, the chords caused their vibrations more or  
 “ less quick, in proportion as they were less or longer, that is  
 “ to say, that the proportion of the lengths was always inverse  
 “ to that of the number of vibrations. Mr. Taylor, a cele-  
 “ brated English geométrician, is the first who has demonstrated  
 “ the law of the vibrations of the chords with any exactness,  
 “ in his ingenious work, entitled *Methodus Incrementorum*  
 “ *Directa & Inversa*, 1715; and these same laws have been since  
 “ demonstrated by Mons. Jean Bernouilli, in the second volume  
 “ of his *Mémoires de l'Académie Impériale de Pétersbourg*.”  
 From the formula which results from these laws, and which may  
 be found in the *Encyclopædia*, under the article chord, I draw  
 the three following corollaries, which serve as principles to the  
 theory of music.

I. If two chords of the same composition are equal in length  
 and thickness, the number of their vibrations in equal times will  
 be as the roots of the numbers, which express the connection of  
 the extension of the chords.

II. If the extensions and lengths are equal, the numbers of the  
 vibrations in equal times will be in inverse proportion to the  
 thickness or diameter of the chords.

III. If the extensions and the thicknesses are equal, the num-  
 ber of vibrations in equal times will be in inverse proportion to  
 the lengths. For the understanding these theorems, I should  
 have first laid down as a rule, that the extension of the chords  
 is not represented by the extending weights, but by the roots of  
 those weights; wherefore the vibrations being as the fourth of  
 the roots of the extensions, the extending weights are between  
 themselves as the cubes of those vibrations, &c. &c.

From

From the laws of the vibrations of the chords are deduced those of the sounds, which result from those same vibrations in the sonorous chord. The more vibrations a chord performs within a given time, the more sharp are its sounds; the less vibrations it forms, the flatter: so that the sounds following between themselves, the connections of the vibrations, their intervals are expressed by the same connections, which submits the whole of the music to a calculation.

We see by the preceding theorems, that there are three methods of changing the sound of a chord, i. e. by changing the diameter; that is, the thickness of the chord, or its length, or its extension. What these alterations produce successively on the same chord, may be produced at once on different chords, by giving them different degrees of thickness, length or extension. This method combined is what is used in general in the concord and playing of the harpsichord, the violin, the bass, guitar, and other similar instruments composed of chords of different thicknesses and differently extended, which consequently must have different sounds.

Moreover, in the one, as the harpsichord, these chords have different lengths fixed, by the which the sounds are varied again, and in the others as the violin, the chords, tho' equal in fixed length, are shortened or lengthened by the finger of the player, at will; and this finger being advanced or drawn back on the handle, perform then the office of moveable bridges, which give to the chord shaken by the fiddle stick, as many different sounds as lengths. In regard to the connection of the sounds and their intervals, in relation to the length of the chords and their vibrations, see SOUND, INTERVAL, CONSONANCE.

The sonorous chord, besides the principal sound which results from the whole of its length, emits other necessary sounds less sensible, and these sounds seem to prove that this chord does not only vibrate in its whole length, but makes each of its aliquots also vibrate in particular, according to the law of their dimensions. To which I should add, that this propriety which serves, or ought to serve as a foundation for all harmony, and which many attribute not to the sonorous chord, but to the air which this sound emits, is not particular to chords only, but may be found in all sonorous bodies. (Vide CORPO SONORO.)

Another not less surprising propriety of the sonorous chord, and which attends on the preceding, is that if the bridge that divides it leans but lightly, and leaves a little communication between the vibration of one part and the other, then, instead of the total sound of one or both parts, we hear only the sound of the greater aliquot common to both parts. (Vide HARMONIC SOUNDS.)

The

The word chord is taken figuratively in composition for the fundamental sounds of the mode; and we often call *Chords of Harmony* those notes of the basis, which, by favour of certain dissonances, prolong the phrase, vary and incorporate the modulation.

**CORPO SONORO**, By this name is called every body which renders, or may immediately render, a sound. It does not follow from this definition, that every instrument of music is a *corpo sonoro*; this name should be given only to that part of the instrument which sounds from itself, and without which there would be no sound. Thus in a violincello, or in a violin, every chord is a *corpo sonoro*; but the case of the instrument, which only resounds or reflects, the sound is by no means a *corpo sonoro*, neither does it form a part. We should have this article before us, whenever there is occasion to speak of a *corpo sonoro* in this work.

**CORPO VOCE**, The voice has different degrees of force as well as of extent. The number of these degrees which each contain, bears the name of *corpo voce*, when we speak of the force, and *volume*, when of extent. Vide **VOLUME**. So, from two sounds similar, and producing the same sound, that which fills the ear strongest, and is heard at the greatest distance, is said to have a greater *corpo* or body. In Italy, the chief qualities that are sought for in voices, are justness and flexibility, but in France, the *corpo voce* is the grand aim.

**CORYPHÆA**, He who conducted the band in the Grecian entertainments, and beat the time in their music. (Vide **TO BEAT TIME**.)

**COUNTER FUGUE**, A kind of fugue whose direction is opposite to that of another fugue, which has been before established in the same piece. So when the fugue is heard by ascending from the tonic to the dominant, or from the dominant to the tonic, the counter fugue should be heard by descending from the dominant to the tonic, or from the tonic to the dominant, and vice versa. In other particulars, these rules are entirely similar to those of the fugue. (Vide **FUGUE**.)

**COUNTER HARMONIC**, The name of a kind of proportion. (Vide **PROPORTION**.)

**COUNTER PART**, This term is used in music, only to signify one of the two parts of a duet considered relatively with the other.

**COUNTER POINT**, This is nearly the same thing with composition, unless that composition may be said of airs, and of a single part; and counter-point is said of harmony only, and of a composition of two or more different parts.

This

This term of counter-point is derived from what in ancient times the notes or signs of sounds were with simple points, and in composing these with many parts, these points were placed over each other, or opposite.

At present, the name of counter-point is especially applied to the parts added on a given subject, taken ordinarily from the music of the church. The subject may be in tenor, or some other superior part; and in that case we say, that the counter-point is below the subject; but it is generally in the bass, which places the subject below the counter-point. When the counter-point is syllabic, or note upon note, it is called simple counter-point; figured counter-point, when there are found different figures or powers of the notes, and when there are formed designs, fugues, or imitations. We easily see that this cannot be done but by assistance of the measure, and that this church melody then becomes a true music. A composition formed and instantly executed, without preparation, on a given subject, is called an air at sight, because then each one composes extempore his part, and his air on the book of the choir.

**COUNTER TEMS,** A measure in counter-time is that in which we pause on a weak time, and slide over in a strong, and in which the air seems to be in contrary sense with the measure.

**COUNTER TENOR,** That of the four parts of music, which belongs to the shrillest and clearest voices of men, in opposition to the counter bass, which is for the deepest and most flat. (Vide PARTS.)

In the Italian music, this part which they call *contr'alto*, and which answers to the counter-tenor, is almost always sung by the upper bass, whether of women or of castratos. In effect, the counter-tenor is by no means natural for a man's voice, it must be forced to be raised to that diapason, and whatever we do, it has always a sharpness, and seldom any justness.


**COUNTRY DANCE,** The air of a kind of dance which bears the same name, which is performed by 4, 6, or 8 persons, and which is generally danced at a ball after the minuets, as being the most lively and entertaining of any thing of the kind. The tunes of the country dances are commonly of two times; they should be full cadenced, pleasing and gay, and still have a great deal of simplicity; for as they are often re-performed, they would be disgusting if of a heavy composition. The most simple things in every kind are always those of which we are least tired.

**COUPLET,** A name given in country ballads and other songs to that part of the poetry which in odes is called *strophe*. As all couplets are composed in the same measure of verse, they  
are

are also sung to the same air, which is often the cause of marring the accent and prosody, because two French verses are not less in the same measure, though the long and short may not be in the same places.

**COUPLETS,** Is also said of the doubles and variations which are made in the same air, by taking it up several times with fresh changes, but always without disfiguring the foundation of the air, as in the Spanish airs and antient chacons. Every time that an air is taken up with a different variation, a fresh couplet must be made. (Vide VARIATIONS.)

**COURANT,** An air appropriated to a kind of dance which has the same name, on account of the goings in and out with which it is filled more than any other. This air is generally of a three flat timed measure, and is marked in a triple of minims with two renewals. It is no longer used, any more than the dance which bears its name.

**COURONNE,** A kind of C contrary ways, with a dot in the middle, which is formed thus .

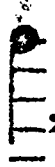
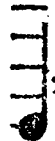
When the couronne, which is also called the sign of a pause, is at once on all the parts of the corresponding note, it is the sign of a general stop; the measure should be suspended there, and we may even sometimes finish by this note. In general, the principal part therein makes at will some passage which the Italians call *cadenza*, whilst all the rest prolong and sustain the sound which is set down for them, or even make an entire pause. But if the couronne is on the final note of a single part, then it is called *point d'orgue*, and denotes, that the sound of that note must be continued until the other parts reach their natural conclusion. It is used also in canons, to specify the place where all the parts may finish when they draw near a conclusion. (Vide PAUSE, CANON, &c. &c.)

**CROME,** This Italian plural signifies *demi-crotchets*. When this word is found written under crotchets or minims, it signifies the same as the parenthesis would, and denotes, that each note must be divided into *demi-crotchets*, according to its powers.

**CROQUE NOTE,** A name given in derision to those silly musicians, who, versed in the combination of notes, and capable of performing the most difficult compositions at sight, execute in general without sentiment, without expression, and without taste. A *croque sol* rendering rather the sounds than the phrases, reads the most energetic music, without the least comprehension, as a school master would read a master piece of eloquence, written in his own language, in a language of which he had no ideas.

**CROCHET,**



**CROTCHET**, a note of music which is formed thus , or thus , and which is equal to two demi-crotchets, or the half of

a minum. In our ancient music they made use of several sorts of crotchets : crotchet with a tail, square crotchets, and crotchets in a lozenge. These two last sorts continue in church music, but in ours we only use the crotchet with a tail. (Vide **POWER of the NOTES.**)

**CROCHET DEMI**, A note in music which is equal in duration to the fourth of a minum only, or the half of a crotchet. Eight demi-crotchets are consequently necessary for a semi-breve, or a four timed measure.

We may here see the form of the demi-crotchet, whether alone, or sung alone on a syllable ; whether united with others when we pass over many at the same time in playing, or on the same syllable in singing. They are generally united by fours in a four or a two timed measure ; by threes in the six or eight timed measures, according to the division of the time ; and by sixes in a third timed measure, according to the division of the measures.—**CORRESPONDENT.**

**EQUAL**

<sup>C R</sup>  
EQUAL POWERS.

MODERN POWERS.

SILENCES.

Rest of four Measures or Bars.

Rest of two Measures or Bars.

A Semibreve is equal



to two Minims.



Rest equal to 1 Measure or Bar.

Rest equal to a Minim.

Rest equal to a Crotchet.

Rest equal to a Quaver.

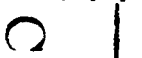
Rest equal to a Semi-quaver.



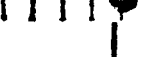
or to



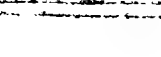
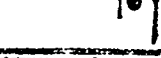
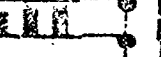
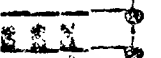
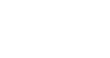
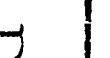
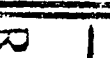
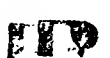
four



Crotchets.



or to eight Quavers.



Or to thirty-two Demi-semiquavers.

**CROWDED**, A crowded genus, *πυκνός*, is according to the definition of Aristoxenes, that wherein in every tetrachord, the sum of the two first intervals is less than the third. For this reason, the harmonic kind is crowded, because the two first intervals, which are each of a quarter tone, form no more than a semi-tone together, a sum much less than the third interval, which is a major third. The chromatic is also of the crowded kind, for these two first intervals form but one tone, less even than the minor third which follows. But the diatonic is by no means crowded, since its two first intervals form a tone and an half, a sum greater than the tone which follows. (Vide **GENUS**, **TETRACHORD**.)

From this term *πυκνός* as radical, are composed the words *Apyncni*, *Barypicni*, *Mesopyncni*, *Oxypyncni*, each of which articles will be found in its place. This determination is no longer in use in the modern music.

**TO CYPHER**, Is writing on the notes of the bass, cyphers or other characters, denoting the concords that these notes should bear, to serve as a guide to the accompanist. (Vide **CYPHERS**, **CONCORD**.)

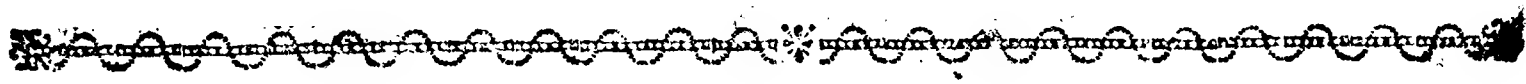
**CYPHERS**, Characters which are placed above or below the notes of the bass to denote the concords which they ought to bear. Though amongst these characters there are many which are not cyphers, this name has been generally given to them because that is the sort of signs which is most commonly presented to our view.

As every concord is composed of many sounds, if it had been necessary to express each of these sounds by a cypher, the cyphers would have been so multiplied and confused, that the accompanist could never have found time to read them at the instant of the execution. Application has therefore been made as much as possible to characterize each concord by a cypher, so that this cypher may suffice to specify, in relation to the bass, the nature of the concord, and consequently all the sounds which are to compose it. There is even a concord which is cyphered without a cypher; for, according to the precision of the cyphers, every note which is not cyphered, either bears no concord, or the perfect chord.

The cypher which denotes each concord, is generally that which answers to the name of the concord; wherefore the concord of the second is cyphered by 2, the seventh by 7, and the sixth by 6, &c. &c. There are concords which bear a double name, and which are also expressed by a double cypher, such are the concords of sixth fourth, sixth fifth, of seventh and sixth, &c. Sometimes even three are placed, which occasions that inconvenience which we would wish to avoid, but as the composition

fition of cyphers is derived from time and chance, rather than from reflecting study, it is not strange that it is not free from fault and contradictions.

I have composed a table of all the cyphers practised in the accompaniment, in which it must be observed, that there are many concords which are differently cyphered in different countries; or in the same country by different authors, and even sometimes by the same. I have given the various methods, so that every one may chuse what appears clearest to himself; for cyphering and occompanying, connect each cypher to the suitable concord; according to the method of the author's cyphering.



GENERAL TABLE  
OF ALL THE

CYPHERS of the ACCOMPANIMENT.

N. B. An Asterisk as added to those which are most used at present in France.

Cyphers.	Names of Concords.	Cyphers.	Names of Concords.
* . .	Perfect Concord.	♯ 3 .	Idem.
8 . .	Idem.	* ♯ .	Idem.
5 . .	Idem.	5 }	Idem.
3 . .	Idem.	♯ }	Idem.
5 }	Idem.	6 }	Concord of Sixth.
3 }	Idem.	3 }	Idem.
3 ♯ .	Perfect Concord.	* 6 . .	Idem.
3 ♭ .	Third Minor.	The different Sixths in this Concord are marked accidentally with the Cypher, as the Thirds in the perfect Concord.	
♯ 3 .	Idem.		
* ♯ .	Idem.		
5 }	Idem.	* 6 }	Concord of Sixth
5 }	Idem.	4 }	Fourth
3 ✕ .	Perfect Concord	6 . .	Idem.
3 ✕ .	Major Third.	7 }	Concord of Seventh.
✕ 3 .	Idem.	5 }	Idem.
* ✕ .	Idem.	3 }	Idem.
5 }	Idem.		
✕ }	Idem.		
3 ♯ .	Perfect Concord		
3 ♯ .	Natural Third.		

Cyphers.	Names of Concords.	Cyphers.	Names of Concords.
7 }	Idem.	7 $\times$ }	Idem.
5 }		4 }	Idem.
7 }	Idem.	2 }	
3 }		$\times$ 7 }	
* 7 .	Idem.	5 }	Idem.
* 7 }	Seventh with	4 }	
$\times$ }	Major Third.	2 }	
* 7 }	With minor Third.		&c.
$\flat$ }		7 $\times$ }	Superfluous Seventh,
* 7 }	With natural Third.	6 $\flat$ }	with minor Sixth.
$\flat$ }		*x7 }	Idem.
7 $\flat$	Concord of Minor	$\flat$ 6 }	
	Seventh.	x7 }	
* $\flat$ 7 .	Idem.	6 $\flat$ }	Idem.
7 $\times$	Concord of Major	2 }	
	Seventh.	x7 }	
* $\times$ 7 .	Idem.	$\flat$ 6 }	Idem.
7 $\natural$	Of natural Seventh.	4 }	
* $\flat$ 7 .	Idem.		&c.
* 7 }	Seventh with false	*7 }	Seventh and Second.
5 }	Fifth.	2 }	
7 }	Idem.	*6 }	Greater Sixth.
5 $\flat$ }		5 }	
* 7 .	Diminished Seventh.	6 .	Idem.
7 $\flat$	Idem.	*5 .	False Fifth.
$\flat$ 7 .	Idem.	5 $\flat$	Idem.
7 $\flat$ }	Idem.	$\flat$ 5 .	Idem.
5 }		6 }	Idem.
7 $\flat$ }	Idem.	$\flat$ 5 }	
5 $\flat$ }			Idem.
$\flat$ 7 }	Idem.	5 }	
5 }		6 }	False Fifth and major
$\flat$ 7 }	Idem.	8 }	Sixth.
$\flat$ 5 }		*x6 }	Idem.
7 $\flat$ }	Idem.	8 }	
5 $\flat$ }		x6 }	Idem.
3 }		$\flat$ 5 }	
	&c.	6 $\times$ }	Idem.
* $\times$ 7 .	Superfluous Seventh.	5 $\flat$ }	
7 $\times$	Idem.	4 }	Smaller Sixth.
7 .	Idem.	3 }	
7 }	Idem.	6 }	
2 }		4 }	Idem.
		3 }	
		*6 .	Idem.

Cyphers.	Names of Concords.	Cyphers.	Names of Concords.
6 . .	Idem.	6 }	
x6 . .	Idem major.	4 }	. Idem.
x6 }		2 }	
4 } .	Idem.	4 }	. Idem.
3 }		2 }	
	&c.	4x }	. Idem.
*x6 .	Smaller superfluous Sixth.	2 }	
x6 }		x4 }	. Idem.
4 } .	Idem.	2 }	
3 }		4x .	. Idem.
x6 . .	Idem.	*x4 .	. Idem.
x6 }		4 .	. Idem.
5 }	. Idem with the Fifth.	4x }	. Triton with minor Third.
3 }		3b }	
x6 }	. Idem.	*4 }	. Idem.
5 }		b }	
6 }	. Smaller Sixth, with superfluous Fourth.	6 }	
4 }		4 }	. Idem.
3 }		3b }	
6 }		*x4 .	. Idem.
x4 }	. Idem.	*x2 .	. Superfluous Second.
3 }		x4 }	. Idem.
6 }		x2 }	
*x4 }	. Idem.	4 }	. Idem.
x4 }	. Idem.	7 }	
3 }		6 }	
*2 . .	Concord of the Second.	4 }	. Idem.
4 }	. Idem.	7 }	
2 }			&c.
6 }	. Idem.	*9 .	. Concord of the Ninth.
2 }		9 }	. Idem.
*5 }	. Second and Fifth.	5 }	
2 }		9 }	. Idem.
6 }	. Triton.	3 }	
4 }		*9 }	. Ninth with Seventh.
6 }	. Idem.	7 }	
4x }		9 }	. Idem.
6 }	. Idem.	7 }	
x4 }	. Idem.	5 }	
6 }	. Idem.	*4 .	. Fourth or Eleventh.
4 }		5 }	. Idem.
		4 }	



Cyphers.	Names of Concords.	Cyphers.	Names of Concords.
*4 } 9 }	. Fourth and Ninth.	*x5 } b4 }	. Superfluous Fifth and Fourth.
*4 } 7 }	. Seventh and Fourth.	5x } 4b }	. Idem.
*x5	. Superfluous Fifth.	*7 }	. Seventh and Sixth.
5x	. Idem.	6 }	. Sixth and Seventh.
x5 }	. Idem.	*9 }	. Ninth and Sixth.
9 }		6 }	
x5 }			
9 }	. Idem.		
7 }			

End of the Table of Cyphers.



Some authors had introduced a custom of covering with a stroke, all the notes of the bass which passed under the same concord: In this manner, the pleasing cantatas of Mons. Clerambault are cyphered, but this invention was of too much utility to continue; it shewed also, too clearly to the eye, all the syncopes of harmony. At present, when the same concord is sustained on four different notes of the bass, there are four different cyphers which they are obliged to bear, so that the accompanist, led into an error, is hastening even to seek the concord which he has under his hand. But it is the fashion in France to load the bass with a confusion of useless cyphers; every thing is cyphered, even to the most evident concords: and he who places the greatest number of cyphers is reckoned the most ingenious. A bass thus confused with trivial cyphers retards the accompanist, and often makes him neglect the necessary cyphers.

The author, I think, must suppose, that the accompanist knows the elements of accompaniment, that he knows how to place a sixth on a mediant, a false fifth on a sensible note, a seventh on a dominant, &c. he should not therefore cypher these evident concords, unless that it be necessary to announce a change of the tone. The cyphers are made only to determine the choice of the harmony in dubious cases, or the choice of sounds in the concords which ought not to be filled: otherwise it is very well to have cyphered basses for scholars only. Cyphers must shew them the application of the rules; as for the masters, it is sufficient to specify the exceptions.

Monf. Rameau, in his *Dissertation on the different Methods of Accompaniment*, has discovered a number of faults in the established cyphers.—He has shewn, that they are too numerous, and, moreover, insufficient, obscure, and equivocal; that they multiply concords uselessly, and that they discover no kind of union.

All these errors come from having been desirous of connecting the cyphers to the arbitrary notes of the thorough bass, instead of connecting them immediately to the fundamental harmony. The thorough bass forms, without a doubt, a part of the harmony, but not the foundation: this harmony is independent of the notes of that bass, and has its determined progress, to which the bass itself ought to subject its direction. By making the concords and cyphers, which vary them from the notes of the bass and their different directions, dependent, we shew only the combinations of the harmony instead of their bass; we infinitely multiply the same number of fundamental concords, and oblige, in some respects, the accompanist to lose sight of the true harmonic succession every instant.

After having made some excellent observations on the mechanism of the fingers in practising the accompaniment, M. Rameau proposes substituting more simple cyphers in the place of ours, which render this accompaniment independent of the thorough bass; so that, without any attention to this bass, and even without seeing it, we could accompany on the cyphers alone with more precision than by the method established with the concurrence of the bass and cyphers.

All the cyphers invented by Monf. Rameau denote two things. 1st. The fundamental harmony in perfect concords, which have no other necessary succession, but which always constitute the tone. 2dly. The harmonic succession determined by the regular direction of the fingers in the dissonances.

All this is done by means of seven cyphers only. I. One letter of the gamut denotes the tone, the tonic, and its concord. If we pass from a perfect concord to another, the tone is changed, a new letter is then made use of. II. To pass from the tonic to a different concord, Monf. Rameau admits but six methods, to each of which he assigns a particular character, that is to say,

1. An X for the sensible concord; for the diminished seventh it is sufficient to add a B flat under that X.

2. A 2 for the concord of the second in the tonic.

3. A 7 for the concord of the seventh.

4. This abbreviation aj for the sixth added.

5. These two cyphers  $\frac{4}{3}$  relative to this tonic for the concord

which

which he calls of third-fourth, and which answers to the concord of the ninth on the second note.

6. Lastly, this cypher 4 for the concord of fourth and fifth on the dominant.

III. A dissonant accord is followed by a perfect concord, or another dissonant accord: In the first case, the concord is specified by a letter; the second is applied to the mechanism of the fingers. 'Tis one, two, or three fingers which ought to descend diatonically.

This is shewn by as many points, one on the other, as the number of fingers which should descend. The diesis's or B's flat which should be made are known by the tone, or substituted in the cyphers correspondent to the points; or indeed, in the chromatic or harmonic they are specified by a small line inclining in its descent or ascent, after the sign of a known note, to denote that it should descend or rise a semitone. By this means the whole is foreseen, and this small number of signs is sufficient to express the finest harmony possible.

It is easily seen, that we must here suppose every dissonance to be prevented in descending; for if there were any which could be prevented in ascending, if there were ascendant directions of the fingers in dissonant accords, the points of M. Rameau could not answer their purpose.

How simple soever this method may be, how favourable soever for practice, it has had no success. It might perhaps be thought, that Mons. Rameau's cyphers, corrected one error only to substitute another; for if he simplifies the signs, and diminishes the number of concords, he not only does not express the true fundamental harmony, but, moreover, he makes those signs so much dependent on each other, that if we should chance to err or lose ourselves a moment, to take perhaps one finger for another, we are irrecoverably lost; the points are no longer significant, and there is more room for entering upon a fresh perfect concord. But with so many preferable reasons, should there not be other objections to cause M. Rameau's method to be rejected? It was new; it was proposed by a man whose abilities were superior to those of all his rivals: This was the cause of its condemnation.

## D.

**D.** This letter in French music signifies the same thing as **P** in the Italian; that is to say, Sweet. The Italians use it also sometimes for the term *dolce*, and this word *dolce* is not only an opposition to *forte*, but to *rude* also.

**D. C.** Vide **DA CAPO**.

**D LA RE, D SOL RE,** or simply **D,** The second note of the natural or diatonic gamut, which is indifferently called **Re.** (Vide **GAMUT.**)

**DA CAPO,** These two Italian words are frequently found written at the end of airs in *rondeau*, sometimes at full length, and often abridged by these two letters **D. C.** They specify that when the second part of the air is finished, we must take up the beginning as far as the final point. Now and then we must not return to the beginning entirely, but to a specified place. In that case, instead of the words *Da Capo*, we find these written, *Al Segno*.

**DACTYLIC,** A name given in ancient music to that kind of rhyme whose measure was divided into two equal times. (Vide **RHYME.**)

A kind of ode, wherein this rhyme was frequently used, was also stiled dactylic, such as the *Harmathian* and *Orthian* odes.

Julius Pollius seems to make a doubt whether the dactylic was a kind of instrument or an air, a doubt, which is however, confirmed by what *Aristides Quintilian* says of it in his second book; and which cannot be resolved but by supposing that the word dactylic signified, at the same time, an instrument and an air, as several words with us.

**DECAMERIDES,** The name of one of the elements in *Monf. Sauveur's System*, which may be seen in the *Memoirs of the Academy of Sciences*, A. D. 1701.

To form a general system, which might afford the best temperament, and be adjusted to every system, this author, after having divided the octave into 43 parts, which he calls *merides*, and sub-divided each *mende* into 7 parts called *Eptamerides*, divides again each *eptameride* into ~~two~~ <sup>ten</sup> other parts, to which he gives the name of *decamerides*. The octave is by this means divided into 3010 parts, by the which we may express, without any perceptible error, the connections of all the intervals in music.—This word is formed from *δέκα*, ten, and *μέρις* a part.

**DASH,** A term in church-music, denoting the psalm, or psalmody of a psalm, or some staves of the psalm, drawn and lengthened on a mournful air, substituted on some occasions in  
lieu

lieu of the joyous airs of the Hallelujah, &c. &c. An air with dashes should be composed in the second or eighth tone. The rest are not suitable to it.

**DASH TRACTUS**, Is also the name of an ancient figure of a note, called also Plica.

**DECLAMATION**, In music, is the art of rendering a grammatical and oratorical accent, by the inflexions and number of the melody. (Vide **ACCENT**, **RECITATIVE**.)

**DEDUTTIONE**, A collection of notes ascending diatonically, or by conjoint degrees. This term is in use only in church music.

**DEGREE**, The difference of position or elevation which is found between two notes placed in the same direction. On the same line, or in the same space, they are in the same degree, and they would be so still, though one of the two be raised or lowered a semi-tone by a diesis or B flat. On the contrary, they might be in unison, though placed on different degrees; as the ut B flat, and the si natural; the fa diesis, and the sol B flat, &c.

If two notes follow each other diatonically, so that one being on a line, the other is in the adjoining space, the interval is of one degree; of two, if they are in a third; of three, if in a fourth; of seven, if in the octave, &c.

Thus, by taking away one of the number expressed by the name of the interval, we always have the number of the diatonic degrees, which separate the two notes.

These diatonic degrees, or degrees simply, are also called conjoint degrees, in opposition to disjoint degrees, which are composed of many degrees conjoined. For instance, the interval of the second is a conjoin'd degree; but that of the third is disjoint, composed of two conjoint degrees; and in the same manner with the rest. (Vide **CONJOINT**, **DISJOINT**, **INTERVAL**.)

**DEMI JEU**, A **DEMI JEU**, or simply A **DEMI**, A term of instrumental music, which answers to the Italian *sotto voce*, or *mezza voce*, or *mezzo forte*, and which expresses a method of playing which holds a medium between the *forte* and *dolce*.

**DEMI MEASURE**, A space of time which equals the duration of a measure. There are properly demi-measures in those measures only whose times are in equal number; for in a three-timed measure, the first demi-measure begins with a tempo forte, and the second in contrary time, which renders them unequal.

**DEMI MINIME REST**, A character of music denoting a silence, the duration of which is equal to that of a demi-crotchet, or the half of a minime.

**DEMI**

**DEMI PAUSE,** A character of music, which expresses a silence, whose duration should be equal to that of a four-timed demi-measure, or of a minum. As there are measures of different powers, and as that of the demi-pause has no variation, it is equal to the half of a measure, only when the entire measure is equal to a semi-breve, the difference of the entire pause excepted, which is always exactly equal to a measure, great or small. (Vide PAUSE.)

**DEMI TIME,** A power which is of exact duration with the half of a time. What I have said in regard to time, must be applied to the demi-time, when I spoke of the demi-measure in regard to measure.

**DEMI TONE,** An interval of music, nearly equal to the half of a tone, and which is more commonly stiled semi-tone. (Vide SEMI-TONE.)

**TO DESCEND,** Is to lower the voice *vocem remettere*, that is, to make the sounds succeed from sharp to flat, or from high to low. This is presented to the eye by our method of pricking the notes.

**DESIGN,** Is the invention and conduct of a subject, the disposition of each part, and the general direction of the whole.

It is not sufficient to compose beautiful airs and a pleasing harmony. All this must be conjoined by a principal subject, to which all the parts of the work must be connected, and by which it may become one. Thus unity should reign in every air, in the movement, the character, the harmony, and modulation. The whole must have reference to one general idea, which unites it. The difficulty is to unite these precepts with an elegant variety, without which, the whole becomes fatiguing. Doubtless, the musician, as well as the poet and painter, dares every thing in favour of this charming variety, provided, that under pretext of contrasting, we have not, for a well conducted work, some broken, murdered music given us, composed of shattered pieces, the connection of which make a complete opposition —

Non ut placidis coeant immitia, non ut

Serpentes avibus gementur, tigribus agni. —

'Tis therefore in a well extended distribution, in a just proportion between all the parts, that the perfection of the design consists; and 'tis particularly in this point, that the immortal Pergoleſis has discovered his judgment, taste, and left all his rivals at such a distance behind him.—His Stabat Mater, his Orpheus, his Serva Padrona, in three different kinds, are three complete Chef d'Oeuvres, equally excellent in their design.

This idea of the general design of a work is also separately applied to each part, which composes it. So we design an air,



a duo, trio, &c. &c. For this purpose, after having fixed on a subject, we lay it out, according to the rules of a good modulation, into every part wherein it should be extended, with so exact a proportion, as not to be effaced from the mind of the audience, and still never to present itself to their ear, but with all the graceful beauties of novelty. 'Tis a fault in the design to suffer the subject to be forgotten, and a much greater to continue it till it becomes disgusting.

TO DESIGN, To form the design of a piece or an air in music. (Vide DESIGN.) "Such a composer designs his works ill." "This choir is shockingly designed."

DESCANT, An ancient term, by which was specified what has been since called counter point. (Vide COUNTER POINT.)

DESK, A structure in the choir, on which were placed the music books in the catholic churches.

DETACHED, used substantively, A kind of execution, by which, instead of sustaining the notes in the duration of their whole powers, we separate them by silences taken on the same powers. The *Detached*, entirely dry and short, is marked on the notes by lengthened points.

DIACOMMATIC, A name given by Mons. Serre to a kind of fourth genus, which consists in certain harmonic transitions, by which the same note continuing apparently on the same degree, ascends or falls a comma in passing from one concord to another, with which we seem to form an union.

For instance, on this passage of the bass <sup>32 27</sup> fa re in the major mode of ut, the <sup>80</sup>la, major third of the first note, remains to become the fifth of re; moreover the true fifth of re <sup>27</sup>or of re <sup>54</sup>is not <sup>80</sup>la but <sup>81</sup>la: wherefore the musician who tunes the la should naturally give it the two consecutive intonations <sup>80 81</sup>la la, which differ by a comma.

In the same manner, in an air called la Folie d'Espagne, in the third time of the third measure, one must imagine that the tonic <sup>80</sup>re ascends a comma to form the second <sup>81</sup>re of the major mode of ut, which is explained in the following measure, and is found suddenly conducted by this musical paralogism, and double use of the re.

We must observe, that to pass briskly from the minor mode of la to that of ut major, the concord of diminished seventh is changed sol diesis, si, re, fa, into the concord of the simple seventh, sol, si, re, fa. The chromatic movement of the sol diesis in opposition to the natural sol, is much the most sensible, but

that is not the only one. The re <sup>80</sup> ascends also by a diacommatic <sup>81</sup> movement from re to re, tho' the notes supposes it permanent on the same degree.

We may find a great number of examples of this diacommatic genus, particularly when the modulation passes suddenly from the major to the minor, or the minor to the major: It is chiefly in the adages, adds Mons. Serre, that excellent masters, tho' principally guided by sentiment, make use of this kind of transition, so necessary to give the modulation an appearance of indecision, whose effects the ear and sentiment often approve, as they are by no means equivocal.

**DIACOUSTIC**, Is a search for the proprieties of a sound, broken by passing across different middles, i. e. from a condense to a more rarified, and so vice versa. As visual rays direct more easily than sounds by lines on certain points, so the experience of the diacoustic is infinitely more difficult than that of the dioptric.

This word is formed from the Greek *διά* through, & *ἀκούω*, to hear. (Vide SOUND.)

**DIAGRAM**, This was, in the ancient music, the table or model which presented to the eye a general extent of all the sounds of a system, and what we call at present Scale, Gamut, Keys. (Vide those words.)

**DIALOGUE**, A composition for two voices or instruments, which answer to each other, and often reunite. The greatest part of scenes in an opera, are in this sense dialogues, and the Italian duo's are so always; but this word is more particularly applied to the organ. 'Tis on this instrument that an organist plays dialogues, by answering in different tunes, or on different keys.

**DIAPASON**, A term in ancient music, by which the Greeks expressed the interval or consonance of the octave. (Vide OCTAVE.)

The musical instrument-makers call, at present, diapasons, certain tables, wherein are marked the measures of these instruments, and of all their parts.

We call also diapason, a suitable extent for a voice or an instrument. Wherefore when a voice is raised to a great height, we say, that it goes out of the diapason; and we say the same of an instrument, whose chords are too loose or too tight, which render but a little sound, or a sound very disagreeable, because its tone is either too high or too low.

This word is formed from *διά* through, and *πᾶσον*, all, because the octave comprehends all the notes of the perfect system.

**DIAPENTE**, A name given by the Greeks to the interval which

which we now call Fifth, and which is the second of the consonances. (Vide CONSONANCE, INTERVAL, FIFTH.)

This word is formed from *δια*, by, and *πέντε*, five, because by going through this interval diatonically, we find five different sounds pronounced.

DIAPENTISSARE, A barbarous word used by Muris, and other ancient musicians.

It was a method of proceeding in the descant or counter-point, by fifths rather than fourths. Muris disserts extensively on the proper art, and convenient rules for this branch.

DIAPHONY, A name given by the Greeks to every interval or dissonance, because the two sounds contradicting each other mutually, are divided, and make their difference appear very disagreeably.

Guy Aretin gives also the name of diaphony to what has been since called descant, on account of the two parts which are therein distinguished.

DIAPTOSE, An inter-cadence or lesser fall. 'Tis in church-music a kind of Perielesis, or passage, which is formed on the last note of an air, generally after a greater interval in ascending. In that case, to certify the justness of this finale, it is twice marked, by separating that repetition by a third note, which is lowered by a degree, after the method of a sensible note, as ut si ut, or mi re mi.

DIASCHISMA, Is, in ancient music, an interval forming the half of a minor semi-tone. The reference is from 24 to  $\frac{2}{2}$ —

V 600, and consequently irrational.

DIASTEME, This word, in ancient music, signifies properly interval, and is the name given by the Greeks to the simple interval, in opposition to the compounded interval, which is called system. (Vide INTERVAL, SYSTEM.)

DIATESSARON, A name given by the Greeks to the interval which we call Fourth, and which is the Third of the consonances. (Vide CONSONANCE, INTERVAL, FOURTH.)

DIATESSERONARE, Was, amongst our ancient musicians, a method of proceeding in the descant or counterpoint, rather by fourths than fifths.

The word is compounded of *δια*, by, and *τέσσαρες*, four, because in going diatonically over the interval, we pronounce four different sounds.

DIATONIC, The diatonic genus is that of the three which proceeds by major tones and semi-tones, according to the natural division of the gamut; that is, that whose least interval is of a conjoint degree, which does not prevent the parts from proceeding by greater intervals, provided they are all taken on diatonic degrees.

This word is derived from the Greek *δια*, by, and *τονος*, the tone; that is, passing from one tone to another.

The diatonic genus of the Greeks resulted from one of the three principal rules which were established for the concordance of the tetrachords.—This genus was divided into many different kinds, according to the different connections, into which the interval could be divided which determined them, as this interval could not be confined below a certain point without changing its genus. These different variations from the same genus were called *χρῶς* colours, by Ptolemy, who distinguishes six of them, but the only one used in practice, was that called diatonic-ditonic, whose tetrachord was composed of a weak semitone, and of two major tones. Aristoxenes divides this same genus into only two kinds, viz. the tender or flat diatonic, and the syntonic or sharp. This latter answers to the ditonic of Ptolemy. (Vide The Connections of one with the other.)

According to Aristoxenes.

The tetrachord being supposed divided into 60 equal parts:

#### D I A T O N I C.

Tender or Flat	—	12 + 18 + 30 = 60.
Syntonic or Sharp	—	12 + 24 + 24 = 60.

#### C H R O M A T I C.

Flat	—	8 + 8 + 44 = 60.
Hemiolian	—	9 + 9 + 42 = 60.
Tonic	—	12 + 12 + 36 = 60.

#### E N H A R M O N I C.

$$6 + 6 + 48 = 60.$$

According to Ptolemy.

The tetrachord being represented by the reference of its two terms.

#### D I A T O N I C.

$$\text{Ditonic} \quad \frac{256}{243} + \frac{9}{8} + \frac{9}{8} = \frac{4}{3}$$

#### C H R O M A T I C.

Flat	—	$\frac{28}{27} + \frac{15}{12} + \frac{6}{5} = \frac{4}{3}$
Intense,		$\frac{27}{22} + \frac{14}{12} + \frac{5}{7} = \frac{3}{4}$
or,		$\frac{22}{21} + \frac{12}{11} + \frac{7}{6} = \frac{4}{3}$
Syntonic		$\frac{21}{20} + \frac{11}{10} + \frac{6}{5} = \frac{3}{2}$

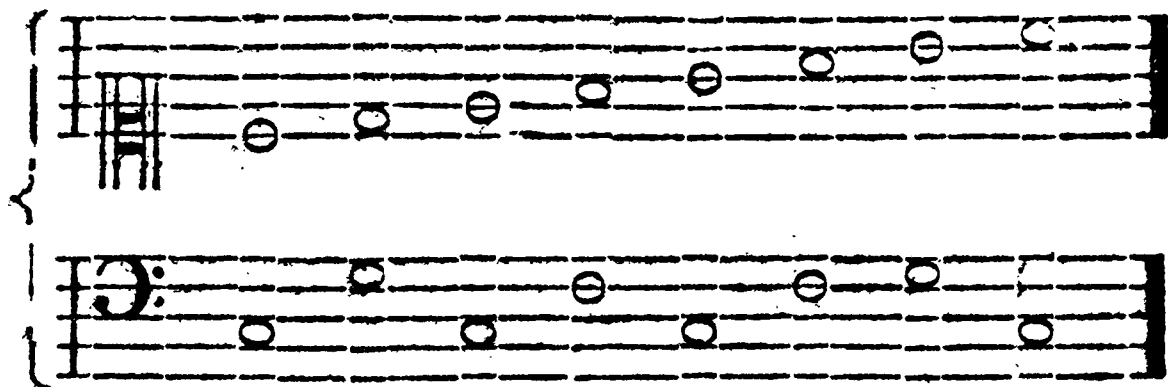
#### E N H A R M O N I C.

$$\frac{45}{45} + \frac{24}{23} + \frac{5}{4} = \frac{4}{5}$$

The

The modern diatonic genus results from the consonant direction of the bass on the chords of a similar mode.

Fundamental and regular Bass of the Scale diatonically ascending by the natural Succession of the *three Cadences*.



Its references have been fixed by the use of the same chords in different tones, so that, if the harmony has at first lain down the diatonic scale, 'tis the modulation which has modified it, and this scale, such as it is at present, is neither exact in regard to the air, or harmony, but only in regard to the method of employing the same sounds in different uses.

The diatonic genus is, without contradiction, the most natural of the three, since it is the only one which can be used without varying the tone. Its intonation also is incomparably more easy than that of the two others; and there is no doubt but that the first songs were composed in this kind; but we must observe, that, according to the laws of modulation, which permit and prescribes even the passage from one tone to another, we have no pure diatonic in our music. Each particular tone, I will allow, in the diatonic, is good; but we cannot pass from one to the other without some chromatic transition, at least, an omission of the harmony. The pure diatonic, in which no one of the sounds is altered, either by the cleff or accidentally, is called, by Zarlin, diatono diatonic, and he gives the church-music as an example. If the cleff is numbered with a B flat, in that case, according to him, it is a flat diatonic, which must not be confounded with that of Aristoxenes. (Vide FLAT.) In regard to the transposition by diesis, this author speaks nothing of it, as it had not been practised in his time. Doubtless he would have given it the name of rough or sharp diatonic, tho' there had even resulted from it a minor mode, as that of E la mi, for in those times, when they had not the harmonic ideas of what we call tones and modes, and where they had already lost the other significations which the ancients fixed to the same words, they paid a greater attention to the particular alterations of the notes than to the general connection which resulted from it. (Vide TRANSPOSITION.)

**DIATONIC SOUNDS** or **CHORDS**. Euclid distinguishes under this name, amongst the moveable sounds, those which do not partake of the greater genus, even in the chromatic and enharmonic. These sounds in each kind are five in number, i. e. the third of each tetrachord; and they are the same which other authors call *apycni*. (Vide *APYCNÎ*, GENUS, *TETRACHORD*.)

**DIAZEUXIS**, A Greek word which signifies division, separation, disjunction. 'Tis by this term that the tone which separated two tetrachords disjoined, was called in ancient music, and which being added to one of the two, formed from it the diapente. It is our major tone, whose reference is from 8 to 9, and which in effect is the difference of the fifth and fourth.

The diazeuxis in their music was placed between the mesis and paramesis, that is to say, between the sharpest tone of the second tetrachord, and the flattest of the third, or otherwise between the note *synnemenon*, and the paramesis *hyperboleon*, i. e. between the third and fourth tetrachord, provided that the disjunction was formed in the one or the other, for it could not be practised at once in the two

The homologous chords of the two tetrachords, between which there was a diazeuxis, sounded the fifth, whereas they sounded in fourth when they were conjoined.

**DIESIS**, Is, according to old Bacchius, the smallest interval of the ancient music. Zarlin says, that Philolaus, the Pythagorean, gave the name of diesis to the *limma*; but he adds, a little farther, that the diesis of Pythagoras is the difference between the *limma* and *apotome*. As to Aristoxenes, he divided the tone into two equal parts, without many variations, or in three or four. From this last division resulted the diesis, enharmonic minor, or fourth of a tone; from the second, the minor chromatic diesis or third of a tone; and from the third, the major diesis, which made exactly a demi-tone.

**DIESIS**, Amongst the moderns, is not properly, as amongst the ancients, an interval of music, but a sign of that interval which specifies that we must raise the sound of the note, before which it is placed, above that which it ought naturally to have, without, however, making its degree or name undergo a change. Moreover, as this elevation may be made, at least, three ways in the established genera, so there are three sorts of diesis', viz.

First, The enharmonic minor, or simple diesis, whose form is like St. Andrews's Cross, according to all our musicians, who follow the practice of Aristoxenes, it raises the note the fourth of a tone; but properly it was only the excess of the semi-tone major on the semi-tone minor. Wherefore from the  
natural



natural mi to the fa B flat, there is an enharmonic diesis, whose numerical powers are from 125 to 128.

Secondly, The chromatic diesis, double or ordinary diesis, marked by a double cross, raises the note a semi-tone minor. This interval is equal to that of the B flat, i. e. the difference of the major to the minor semi-tone; wherefore, to ascend from a tone beyond the natural mi, we must pass to the fa diesis. The reference of this diesis is from 24 to 25. (Vide on this article an essential remark at the word semi-tone.)

Thirdly, The enharmonic major, or triple diesis, marked by a triple cross, raises, according to the Aristoxenians, the note about three fourths of a tone. Zarlin says, that it raises it a semi-tone minor, which cannot be understood of our semi-tone, since in that case, this diesis would be exactly similar to our chromatic diesis.

Of these three diesis', whose intervals were all practised in ancient music, there is only the chromatic which is used in ours; the intonation of the inharmonic diesis' being to us an almost insurmountable difficulty, and the use of them being also abolished by our system.

The diesis, as well as the B flat, is always placed on the left, before the note which ought to bear it; and before or after a cypher, it signifies the same thing as before a note. (Vide CYPHERS.) The diesis' which are intermixt with the cyphers of the thorough bass, are often no more than simple crosses, as the enharmonic diesis: but this cannot cause an equivocation, since it is no longer in use.

There are two methods of making use of the diesis. The one, accidental, when, in the course of the air, we place it on the left of a note. This note, in the major modes, is most generally found the fourth of the tone: In the minor modes, two accidental diesis' are most commonly necessary, particularly in ascending, i. e. one on the sixth note, and another on the seventh. The accidental diesis changes only the note which immediately follows, or, at the most, those which in the same measure are placed on the same degree, and sometimes in the octave, without any contrary sign.

The other method is to make use of the diesis in the cleff, and in that case it is carried thro' the whole continuance of the air, and on all the notes which are placed on the same degree, whereon is the diesis, unless it is opposed by some B flat, or sharp, or that the cleff has no changes.

The position of the diesis' in the cleff is by no means arbitrary, no more than that of the B's flat; otherwise, the two

semi-tones of the octave would be subject to be found together out of the prescribed intervals. We must then apply to the diesis' a similar reasoning to that which we have made at the article B flat, and it will be found that the order of the diesis' which is suitable to the cleff, is that of the following notes, beginning by fa, and ascending successively by fifths, or descending by fourths as far as the la, at which we generally stop, because the diesis of mi which would follow, does not differ at all from the fa on our scale.

#### Order of Diesis' on the Cleff.

Fa, Ut, Sol, Re, La, &c. &c.

We must take notice, that a diesis cannot be used in the cleff without using also those which precede it; wherefore, the diesis of ut is placed only with that of fa; that of sol with the two preceding, &c. &c.

I have given, at the article Transposed cleff, a formula to find immediately if a tone or mode ought to bear diesis' in the cleff, and how many.

Such is the acceptation of the word diesis, and its use, in practice,

The most ancient manuscript, wherein I have seen the sign used, is that of Jean de Muris, which makes me imagine it might have been his invention. But it appears, in his examples, to have only the effect of B sharp; and this author also gives the name of diesis always to the major semi-tone.

In harmonic calculations, we call diesis' certain intervals, greater than a comma, and less than a semi-tone, which make the difference of other intervals engendered by the progressions and references of the consonances. There are three of these diesis'. First, The major diesis, which is the difference between the major and minor semi-tone, and whose numerical powers are from 125 to 128. Secondly, The minor diesis, which is the difference between the semi-tone minor and major diesis, and in reference 3072 to 3125. Thirdly, The diesis maxima, in numerical powers from 243 to 450, which is the difference of the minor tone and greater semi-tone.

It must be confessed, that so many different acceptations of the same word in the same art, are only a cause of frequent equivocations, and produce a continual confusion of errors.

**DIEZEUGMENON**, A tetrachord diezeugmenon is the name which the Greeks gave their third tetrachord, when it was disjoined from the second. (Vide **TETRACHORD**.)

**DIMINISH'D**,

**DIMINISH'D**, A diminish'd interval is every minor interval, from which a semitone is taken by a diesis to the inferior note, or by a B flat to the superior. In regard to the just intervals, formed by perfect consonances, when they are diminish'd a semitone, they ought not to be called diminish'd, but false; tho' it is often said, mal-a-propos, a diminish'd fourth, instead of saying false fourth; and diminish'd octave, instead of saying false octave.

**DIMINUTION**, An old word, which signified the division of a long note, as a minum, or crotchet, into many other smaller notes of lesser powers. It was also understood, that this word expressed those terms which we call by the denomination of trills or quavers. (Vide those words.)

**DIOXY**, Is, with reference to Nicomachus, a name which the ancients gave sometimes to the consonance of the fifth, which they more generally called diapente. (Vide **DIA-PENTE**.)

**DIRECT**, A direct interval is that which forms any kind of harmony on the fundamental sound which produces it. Wherefore, the fifth, major third, and the octave, with their redditives, are rigorously the only direct intervals; but by extension, we call also direct intervals all the rest, as well consonant as dissonant, which each part forms with the practised fundamental sound, which ought to be below it. Wherefore, the minor interval is a direct interval on a concord in third minor, and in the same manner the seventh or sixth added on the concord which bear their name.

A direct concord is that which has the fundamental sound in sharp, and whose parts are distributed, not according to the most natural order, but according to the most confined. Wherefore, the perfect direct concord is not octave, fifth, and third, but third, fifth, and octave.

**DISCANT**, This was, in our music, that kind of counterpoint which the superior parts compos'd instantly, in singing extempore on the tenor or bass, which forms some idea of the slowness with which the music should be directed, to be executed in that manner by musicians, as little skilful as those of that time. "Discantant," says Jean de Muris, "qui simul cum  
" uno vel pluribus dulciter cantat, ut ex distinctis sonis sonus  
" unus fiat, non unitate simplicitatis, sed dulcis concordisque  
" mixtionis unione." After having explained what he means by consonances, and the choice which is necessary to make between them, he finds fault sharply with the singers of his time, who practised them almost indifferently. "With what audacity," says he, "if our rules are good, do those dare compose  
" the discant, which have not the least comprehension of the

“ choice of concords, not the least mistrust of those which are  
 “ more or less concordant ; who neither know from which they  
 “ should abstain, nor which they sho’ d most frequently use ;  
 “ neither in what place to employ them, nor any thing which  
 “ the practice of an art well understood requires ? If they suc-  
 “ ceed, it is by chance. Their voices wander without rule on  
 “ the tenor, with which they are concordant, if fortune stands  
 “ their friend. They throw out their sounds at hazard, as a  
 “ stone which an awkward hand aims at a mark, and which in  
 “ an hundred times may hit it perhaps once.”

The good old *Muris* touches also these corrupters of pure and simple harmony, in which his age abounded equally with ours. — *Heu, proh dolor !* His temporibus aliqui suum defectum inepto proverbio colorare moliuntur. *Iste est, inquirunt novus discantandi modus, novis scilicet uti consonantiis. Offendunt ii intellectum eorum, qui tales defectus agnoscunt, offendunt sensum, nam inducere cum deberent delectationem, adducunt tristitiam. O incongruum proverbium ! O mala coloratio ! Irrationabilis excusatio ! O magnus abusus, magna ruditas, magna bestialitas, ut asinus sumatur pro homine, capra pro leone, ovis pro pisce, serpens pro salmone ! Sic enim concordia confunduntur cum discordiis ut nullatenus una distinguatur ab alia. O si antiqui periti musicae doctores tales audissent discantatores, quid dixissent ? Quid fecissent ? Sic discantantem in creparent & dicerent. Non hunc discantum, quo uteris, de me sumis. Nom tuum cantum unum & concordantem cum me facis. De quo te intromittis ? Mihi non congruis, mihi adversarius, scandalum tu mihi es : O utinam taceres ! Non concordas, sed deliras & discordas.*

**DISCORDANT**, By this term is called every instrument which is played on and is not in concord, every voice which sings false, every part which is not concordant with the rest. An intonation which is not just, forms a false tone. A continuance of a whole false, forms a discordant air. This is the difference between these two words.

**DISDIAPASON**, A name given by the Greeks to the interval which we call double octave.

The disdiapason is nearly of the greatest extent which the human voice can arrive at without forcing itself. There are even very few who can sound it fully. It is for this reason that the Greeks bounded each of their modes by this extent, and gave it the name of a perfect system. (*Vide MODE, GENUS, SYSTEM.*)

**DISJOINT**, The Greeks gave the relative name of disjoint to two tetrachords, which immediately followed each other, whilst the deepest chord of the sharp was a tone above the sharpest

sharpest of the flat, instead of being similar to it. Wherefore, the two tetrachords, hypaton and diazeugmenon, were disjoint; and the two, synnemenon and hyperbolean, were so also. (Vide TETRACHORD.)

Among us, the name of disjoint is given to the intervals which do not follow each other immediately, but are separated by another interval: wherefore these two intervals ut mi and sol fi are disjoint. The degrees which are not conjoint, but which are compos'd of two or more conjoint degrees, are also called disjoint degrees. Therefore each of these two intervals, of which I have spoken, forms a disjoint degree.

**DISJUNCTION**, Was, in ancient music, the space which separated the mesis and paramesis, or in general a tetrachord from one adjoining, when they were not conjoint. This space was a tone, and was called in Greek diazeugsis.

**DISSONANCE**, Every sound, which with another forms a concord disagreeable to the ear, or in a more extensive sense, every interval which is not consonant. Moreover, as there are no other consonances, but which form between themselves, and with the fundamental, the sounds of the perfect concord, it follows thence, that every other interval is its true dissonance. The ancients even counted as such, the thirds and sixths, which they cut off from the consonant accords.

The term dissonance is derived from two words, the one Greek, the other Latin, which signify a double sound. In effect, what renders the dissonance disagreeable, is, that the sounds which form it, far from uniting themselves to the ear, strike against each other, and are heard as two distinct sounds, tho' struck at the same time.

The name of interval is given sometimes to the interval, and sometimes to each of the two sounds which form it. But tho' two sounds are dissonant between themselves, the name of dissonance is given more especially to that of the two which is most remote from the concord.

There are an infinity of possible dissonances: but as in music all the intervals are excluded, which the received system does not furnish, these are reduced to a small number; also for practice, we ought to choose amongst those, only those which answer to the genus and mode; and lastly, to exclude from the last those which cannot be used according to prescribed rules. What are those rules? Have they any natural foundation, or are they purely arbitrary? This is what I propose to examine in this article.

The physical principle of harmony is drawn from the production of the perfect concord, by the resonance of any sound.

All the consonances arise from thence, and it is nature itself which furnishes them. The dissonance proceeds on a different plan, at least, such as we practice.

We allowedly find its generation in the progressions of consonant intervals, and in their differences, but we cannot discover any physical reason which authorises us to introduce it in the body itself of harmony. P. Merfenne contents himself with shewing the generation by calculation, and the different connections of dissonances, as well of those which are rejected, as of those added; but he mentions nothing of the laws for using them. Mons. Rameau says in formal terms, that the dissonance is not natural to harmony, and that it cannot be used therein without the assistance of art. However, in another work, he endeavours to find its principle by numerical powers, and harmonic and arithmetical proportions, as if there were any identity between the proprieties of the abstracted quantity, and the sensations of hearing.

But after having wasted a quantity of analogies, after a number of metamorphoses of these different proportions, the one within the other, after numerous operations, and useless calculations, he finishes, by establishing, on trifling connections, that dissonance which he gave himself such unwearied pains only to discover. Wherefore, because in the order of harmonic sounds, the arithmetical proportion gives it by the lengths of the chords, a minor third in flat, (take notice that it gives it to the sharp by the calculation of vibrations) he adds to the flat of the sub-dominant a new minor third. The harmonic proportion gives it a minor third in sharp, (it would give it to the flat by vibrations) and he adds to the sharp of the dominant a fresh minor third. These thirds added, do not, it is true, form any proportion with the preceding references: the references, which themselves ought to have, are often changed; but that signifies little: Mons. Rameau gives powers to every thing for the best. The proportion serves it to introduce the dissonance, and the errors of the proportion to make it felt.

The illustrious geometrician, who has deigned to make the world acquainted with Mons. Rameau's system, having suppressed all these vain calculations, I shall follow his example, or will rather transcribe what he says concerning the dissonance; and Mons. Rameau will be indebted to me for having drawn this explanation from the elements of music, rather than from *his* writings.

It being supposed, that the essential chords of the tone, according to Mons. Rameau's system, are known, viz. in the tone of ut, the tonic ut, the dominant sol, and the sub-dominant fa,

we



we must also be acquainted, that this same tone of ut has the two chords ut and sol common with the tone of sol; and the two chords ut and fa, common with the tone of fa. Consequently this direction of the bass ut sol may belong to the tone of ut, or to that of sol; as the direction of the bass fa ut, or ut fa, may appertain to the tone of ut, or to that of fa.

In that case, when we pass from ut to fa, or to sol, in a fundamental bass, we are still ignorant in what tone we are. It would be however serviceable to know it, and be able, by some method, to distinguish the generator from its fifths.

We may gain this advantage by joining together the sounds sol and fa, in the same harmony, i. e. by joining to the harmony sol si re of the fifth sol, the other fifth fa, in this manner, sol, si, re, fa; this fa added, being the seventh of sol, forms a dissonance; 'tis for that cause, that the concord sol si re fa is called dissonant concord, or concord of the seventh. It serves to distinguish the fifth sol from the generator ut, which always bears, without mixture or alteration, the perfect concord ut mi sol ut, given by nature herself. (Vide CONCORD, CONSONANCE, HARMONY.)

By this means, we see that when we pass from ut to sol, we pass at the same time from ut to fa, because the fa becomes, by this means, entirely determined, because there is but this tone, to which the sounds sol and fa belong at the same time.

Let us now see continues, Mons. D'Alembert, what we should add to the harmony fa la ut, from the fifth fa, below the generator, to distinguish this harmony from that of the same generator. It seems then, that we should add to it the other fifth sol, for the purpose that the generator ut passing to fa, may pass at the same time to sol, and that the tone may be thereby determined; but this introduction of sol in the concord of fa la ut would give two seconds following each other fa sol, sol la, that is to say, two dissonances whose union would be too agreeable to the ear; an inconvenience which must be avoided; for if, to distinguish the tone, we alter the harmony of this fifth fa, we must alter it as little as possible. For this reason, instead of sol, we will take its fifth re, which is the sound nearest to it, and we shall have for the sub-dominant fa, the concord fa la ut re, which we call concord of greater sixth, or sixth added.

We may take notice here of the analogy which is observed between the concord of the dominant sol, and that of the sub-dominant fa. The dominant sol, by ascending above the generator, has a concord entirely composed of thirds in ascending beyond sol, sol si re fa.

Moreover,

Moreover, the sub-dominant fa, being below the generator ut, we shall find, in descending by ut towards fa, by thirds, ut la fa re, which contains the same sounds as the concord fa la ut re gives to the sub-dominant fa.

We moreover see, that the alteration of the harmony of the two fifths, consists only in the minor third re fa, or fa re, added on each side to the harmony of these two fifths.

This explanation is so much the more ingenious, as it shews at once the origin, use, direction of the dissonance, its nearest connection with the tone, and the method of determining reciprocally the one by the other. The fault that I find in it, but an essential fault for making the whole glide, is the use of a chord unknown to the tone, as the essential chord of the tone; and this, by a false analogy, serving as a basis to Mons. Rameau's system, destroys it, by rendering itself erroneous.

I speak of that fifth below the tonic, of that sub-dominant, between which and the tonic, there cannot be perceived the smallest union, which can authorize the use of this sub-dominant, not only as an essential chord of the tone, but even in any sense. In effect, what is there common between the resonance, the shaking of the unison of ut, and the sound of its fifth below? 'Tis by no means because the entire chord is a fa, that its aliquots resound at the sound of ut, but because it is a multiple of the chord ut; and there is no multiple of this same ut, which does not render a similar phenomenon. Take the septuple, it will shake and resound in its parts as well as the triple: Can it be said, that the sound of this septuple, or its octaves, are the essential chords of the tone? Enough is said, since it does not even form a commensurable connection in notes with the tonic.

I know that Mons. Rameau has pretended, that at the sound of any chord, another chord in its twelfth below shook without resounding; but, besides its being a strange phenomenon in the acoustic, that a sonorous chord which shakes, does not resound, it is however known, that this pretended experience is an error, that the sharp chord shakes because it divides itself, and that it appears not to resound, because it forms in its parts only the unison of the sharp, which is not easily distinguished.

Let Mons. Rameau then tell us, that he takes the fifth below, because he finds the fifth above; and that this playing with fifths appears to him convenient for the establishment of his system: We may congratulate him on his invention so very ingenious, but let him not authorize it with a chimerical experience; let him not torment himself to find, in the variations of harmonic  
and

and arithmetical proportions, the foundations of harmony, nor take the propriety of numbers for that of sounds.

Take notice also, that if the counter-generation, which he supposes could have a place therein, the concord of the sub-dominant fa, should not, by any means, bear a major third, but a minor: because the la Bemol is the true harmonic, which is

assigned to it by this change  $ut\ fa\ la\ \underline{b}$ . So that according to this computation, the gamut of the major mode ought naturally to have the minor sixth; but it has the major, as fourth fifth, or as fifth of the second note, wherefore here is a second contradiction.

Lastly, take notice, that the fourth note given by the series of aliquots, from whence arises the true natural diatonic, is by no means the octave of the pretended sub-dominant, in the reference of 4 to 3, but another fourth note entirely different in the reference of 11 and 8, so that every theorician must perceive it clearly at first sight.

I, however, appeal to the ear and experience of musicians.— Let them but listen to the rough and disagreeable cadence imperfect of the sub-dominant to the tonic, when compared with the self-same cadence, in its natural place, which is from the tonic to the dominant. In the first case, can it be said that the ear is satisfied after the concord of the tonic? Is it not in expectation of a continuance, or conclusion, at the time it really has it? Moreover, what is a tonic, after the which, the ear still remains unsatisfied? Can it be looked on as a true tonic, and are we not in reality in the tone of fa, while we imagine ourselves to be in that of ut? Let it be observed, how greatly the intonation of the fourth and the sensible note, as well ascending as descending, appears strange to the mode, and difficult to the voice. Tho' long custom may have accustomed the ear and voice of the musician to it, the difficulty of beginners to sound this note ought to shew how very unnatural it is. This difficulty is attributed to the three consecutive tones. Ought it not to be seen, that those three consecutive tones, as well as the note which introduces them, give a barbarous modulation, which has no foundation in nature? She certainly bestowed a better guidance on the Greeks when she made them finish their tetrachord precisely at the mi of our scale, that is to say, at the note which precedes this fourth: They chose rather to take this fourth below, and, by this means, they found by the ear alone, what all our harmonic theory has not rendered perceptible.

If

If the testimony of the ear, and that of reason unite, at least in the system given, to reject the pretended sub-dominant, not only from the number of essential chords of the tone, but also from the number of sounds which may enter into the scale of the mode, what becomes of all this theory of dissonances? What of the explanation of the minor mode? and of the whole of Mons. Rameau's system?

Not being therefore able to perceive, either in physic or calculation, the real generation of the dissonance, I sought for it, an origin, purely mechanic; and 'tis in the following manner that I endeavoured to explain it in the encyclopædia, without absenting myself from Mons. Rameau's practical system.

I suppose the necessity of the known dissonance. (Vide HARMONY, CADENCE.)

It now remains to see where that dissonance should be taken, and how used.

If we compare successively all the sounds of the diatonic scale with the fundamental sound in each of the two modes, we shall find for a complete dissonance the second, and the seventh, which is no more than a varied second, and which really forms a second with the octave. That the seventh should be varied from the second, and not the second from the seventh, is evident by the expression of the references, for that of the second 8. 9. being more simple than that of the seventh 9. 16. the interval which it represents, consequently is not the generated, but the generator.

I allow that other altered intervals may become dissonant, but unless it is therein expressed or understood, they are only accidents in the modulation, to which the harmony pays no respect, and these dissonances, in that case, are not treated as such. Wherefore, it is a certain thing, that where there is no second, there is no dissonance; and the second is properly the only dissonance that can be used.

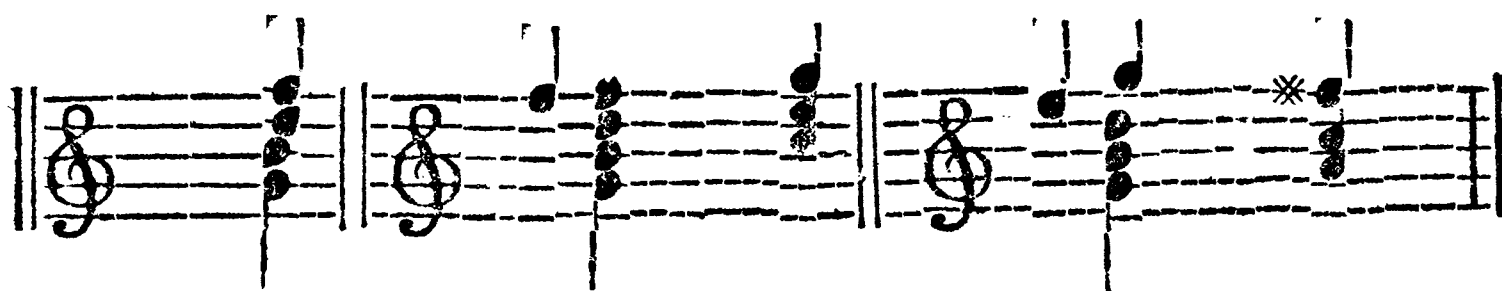
To reduce all these consonances to their smallest space, we need not go out of the octave; they are all therein contained in the perfect concord. Let us then take this concord sol fi re sol, and see in what part of that concord, which I as yet suppose in no tone, we may place a dissonance, i. e. a second, to render it as little disgusting to the ear as possible. On the la, between the sol and the fi, it would form a second with each, and consequently would be doubly dissonant. It would be the same between the fi and re, as between every interval of the third; let the interval of the fourth remain between the re and the sol. Here we may introduce a sound two ways. 1st. We may add the note fa, which will form a second with sol, and a third with re. 2dly. Or the note mi, which will form a second with re, and a third with

with sol. It is evident, that from each of these two ways, will be produced the least rough dissonance that can be, since it will not be discordant with any one sound; and it will produce a new Third, which, as well as the two preceding, will contribute to the sweetness of the whole concord. On one side we shall have the concord of the seventh, and on the other that of the sixth added; the only two dissonant accords admitted in the system of the fundamental bass.

It is not sufficient to cause the dissonance to be heard; it must be pressed; you then disgust the ear only to flatter it afterwards more agreeably. Here are two joint sounds, on one side the fifth and sixth, and the other the seventh and the octave; as long as they will in this manner form the second, they will continue dissonant, but let the parts, which make them to be heard, be distant one degree; let the one ascend, or the other descend diatonically, and the second will on each side become a third; that is, one of the most agreeable consonances. Wherefore, after sol fa will be found sol mi, or fa la; and after re mi, mi ut, or re fa; and this is what is called preventing the dissonance.

It remains to be determined, which of the two joined sounds should ascend or descend, and which should continue as before; but the plan in determination stares us in the face. Let the fifth or the octave remain as principal chords, let the sixth ascend, and the seventh descend, as accessory sounds and dissonances. Moreover, if, of the two joined sounds, that which has the least compass to make, should have the preference, the fa will again descend on the mi after the seventh, and the mi of the concord of sixth added will ascend on the fa, for there is no shorter course to prevent the dissonance.

Let us now see what course the fundamental sound ought to take in relation to the movement assigned to the dissonance. Since one of the two joined sounds remains in its place, it ought to form an union in the following concord. The interval, which the fundamental bass ought to form at quitting the concord, ought then to be determined on these two conditions: 1st. That the octave of the preceding fundamental sound may continue in its place after the concord of the seventh, and the fifth after the concord of sixth added. 2dly. Let the sound, on which the dissonance is resolved, be one of the harmonies of that to which the fundamental bass passes. Moreover, the best movement of the bass being by intervals of the fifth, if it descends from the fifth in the first case, or if it ascends from the fifth in the second, all the conditions will be entirely fulfilled, as it is evident, by the inspection only of the example.



Perfect Concord.

Seventh.

Sixth added.

From thence is drawn a method of knowing to whatever chord of the tone each of the two concords is most suitable. Which are the two most essential chords in each tone? The tonic and dominant. How can the bass have its direction by descending from the fifth on two essential chords of the tone? It must be by passing from the dominant to the tonic, of which the dominant is the chord to which the concord of the seventh is most suitable. How can the bass by ascending from the fifth have its direction on two essential chords of the tone? 'Tis by passing from the tonic to the dominant, and of which the tonic is the chord to which the concord of sixth added is most apt. The reason for which see in the example, where I have given a diesis to the fa of the concord which follows the latter, for the re being dominant tonic, ought to bear the major third. The bass may have other directions, but those are the most perfect and the two principal cadences. (Vide CADENCE.)

If these two dissonances are compared with the fundamental sound, we find, that that which descends is a minor seventh, and that which rises, a minor sixth; from whence we draw this new rule, that the major dissonances ought to ascend, and the minor descend; for, in general, a major interval has less course to take in ascending, and a minor in descending, and generally also in diatonic directions, the smaller intervals are preferable.

When the concord of the seventh bears a major third, that third forms with the seventh another dissonance, which is the false fifth, or by variation, the triton. This third opposite to the seventh, is also called major dissonance, and it is prescribed to it to ascend, but that is in the quality of a sensible note, and, without the second, that pretended dissonance would by no means exist, or would not be treated as such.

One observation not to be forgotten is, that the two only notes of the scale, which are not found in the harmonics of the two principal chords ut and sol, are precisely those which are therein introduced by the dissonance, and furnish, by this means, the diatonic gamut, which, without this, would be imperfect; and which explains how the fa and la, though strange to the mode, are found in its scale, and why their intonation, always rough, in spite of custom, places at a distance the idea of the principal tone.

We



We must also take notice, that these two dissonances, viz. the major sixth and minor seventh, differ no more than a semi-tone, and would differ still less if the intervals were very exact. By the assistance of this observation we may draw from the principle of reasoning, an origin nearly approaching to both, as I will demonstrate.

The harmonics which accompany any sound whatever, are not bounden by those which compose the perfect concord. There are an infinity of others less sensible in proportion as they become sharper, and their references more composed; and these references are expressed by the natural series of aliquots,  $\frac{1}{2}$   $\frac{1}{3}$   $\frac{1}{4}$   $\frac{1}{5}$   $\frac{1}{6}$   $\frac{1}{7}$ , &c. The six first terms of this series give the sounds which compose the perfect concord and its reductives, the seventh being excluded; this seventh term, however, enters like them in the whole resonance of the generating sound, tho' less sensibly; but it does not enter as a consonance; it must then as a dissonance; and this dissonance is given by nature. It remains now to see its connection with those of which I have spoken.

This connection, moreover, is intermediary between each, and nearly approaching to both; for the reference of the major sixth

is  $\frac{3}{5}$ ; and that of the minor seventh  $\frac{9}{10}$ . These two references

being reduced to the same terms are  $\frac{48}{80}$  and  $\frac{45}{80}$ :

The reference of the aliquot  $\frac{1}{7}$  connected to the simple by its octaves, is  $\frac{4}{7}$ ; and this reference reduced to the same term with

the preceding, is found intermediary between the two, in this

manner  $\frac{336}{560}$   $\frac{320}{560}$   $\frac{315}{560}$ ; wherein we see, that this connection differs

from the major sixth only a  $\frac{1}{35}$ , or nearly two commas; and

from the minor seventh only a  $\frac{1}{112}$ , which is much less

than a comma. To make use of the same sounds in the diatonic genus, and in different modes, it has been necessary to change them; but this change is not great enough to erase the traces of their origin.

I have demonstrated, at the word Cadence, how the introduction of these two principal dissonances, the seventh and the sixth added, gives a method of uniting a continuance of harmony by

making it ascend or descend at will, by the interposition of dissonances.

I make no mention here of the preparation of dissonances, less because it has too many exceptions to form from it a general rule, than because this is not its place. (Vide *TO PREPARE*.) In regard to the dissonances by supposition or suspension, vide also those two words.

Lastly, I mention nothing of the diminished seventh, a particular concord, which I shall have occasion to speak of at the word *Enharmonic*.

Tho' this method of conceiving the dissonance gives a pretty clear idea of it, yet, as this idea is not drawn from the foundation of the harmony, I am very far from endeavouring to give it a greater praise than it merits, nor have I ever given it more than its true worth; but they had till now reasoned so ill on the dissonance, that I do not imagine myself to have proceeded worse than others. *Monf. Tartini* is the first, and, till now, the only one who has deduced a theory of dissonances from the true principles of harmony. To avoid useless repetitions, I convey the reader to the word *System*, where I have made the exposition of his. I will not take upon myself to judge if he has found, or not, that of nature; but I should take notice, at least, that the principles of this author appear to have, in their consequences, that universality and connection which is rarely found, unless in those which lead to the truth.

One observation more on this article. Every commensurable interval is really consonant: these are truly dissonant, only those whose references are irrational; for these are only those to which no common fundamental sound can be assigned. But the point being passed, wherein the natural harmonies are still sensible, this consonance of commensurable intervals is not admitted any more than the induction. In this case, the intervals form a great part of the harmonic system, since they are in the order of its natural generation, and are referred to the common fundamental sound; but they cannot be admitted as consonant by the ear, because it does not perceive them in the natural harmony of the *corpo sonoro*. Besides, the more the interval is composed, the more it is raised to the sharp of the fundamental sound, which is proved by the reciprocal generation of the fundamental sound, and superior intervals. (Vide the *System* of *Monf. Tartini*.) Moreover, when the distance of the fundamental sound, at the most sharp of the generator, or generated interval, exceeds the extent of the musical or perceptible system, whatever is beyond that extent, being to be judged void, such an interval has no sensible foundation, and ought to be rejected from practice, or only admitted as a dissonant. This is neither the system of  
*Monf.*

Monf. Rameau, or that of Tartini, or mine; but the dictates of nature, the remainder of which I do not pretend to explain.

**MAJOR DISSONANCE**, Is that which is prevented by ascending. This dissonance is only relative to the minor dissonance, for it forms a third or sixth major on the true fundamental sound, and is no other than the sensible note in a concord dominant, or a sixth added in its own.

**MINOR DISSONANCE**, Is that which is prevented in descending. This is always the dissonance properly so called, i. e. the seventh of the true fundamental sound. The major is also that which is formed by a superfluous interval; and the minor by a diminished interval. These different acceptations happen from the word dissonance being equivocal, and signifying sometimes an interval, and at other times a simple sound.

**DITHYRAMB**, A kind of Greek song, which was sung in honour of Bacchus, in the Phrygian mode, and was filled with that fire and gayety that the God inspires to whom it was consecrated. We must not enquire if our modern men of letters, always wise, have raised their cries on the disorder and confusion of Dithyrambs. 'Tis very wrong, without doubt, to get drunk, particularly in honour of the Divinity! but I had much rather be intoxicated, than have that silly good-sense, which measures, by cold reasoning, the works and discourses of a man in liquor.

**DITONE**, Was, in the Greek music, an interval composed of two tones, viz. a third major. (Vide INTERVAL, THIRD.)

**DIVERTISSEMENT**, Is the name given to certain collections of dances and airs, which it is the rule in Paris to insert in each act of an opera, whether comic or tragic. An importunate diversion, the author of which has taken care to divide the action at some interesting moment, and which the actors and spectators, the former seated, the latter standing, have the patience to see and listen to.

**DIVISIONS**, By this name were called the different methods of applying to the notes, the syllables of the gamut, according to the different positions of the two semitones of the octave, and according to the different routes to come at them. As Aretin invented only six of these syllables, and as there are seven notes to sound in an octave, it must be necessary to repeat the name of some note. This was the reason that they called always mi fa or fa la, the two notes, between which one of the semitones was placed. These names determined at the same time those of the nearest notes, whether in ascending or descending. Moreover, as the two semitones are subject to change their place in the modulation, and as there is in music a quantity of different methods to apply the six same syllables to them, these methods were called

called divisions, because the same notes therein continually changed their names. (Vide GAMUT.)

In the last age the syllable *fi* was added to the six first of the gamut of Aretin. By this means the seventh note of the scale being found named, the divisions became useless, and were abolished from the French music; but amongst all the other nations, where, according to the genius of the artist, the musicians always take their old track, for the perfection of the art, they have not adopted the *fi*; and there is some appearance, that in Italy, in Spain, in Germany, and in England, the divisions will serve sometimes for the inconvenience of beginners.

**DO,** A syllable which the Italians substitute in the place of that of *ut*, the sound of which they find too rough. The same motive has led many persons to undertake, and among others *Monf. Sauveur*, to change the names of the syllables of our gamut; but the ancient custom has always prevailed amongst us. It is, perhaps, an advantage; it is good to accustom one's self to *sol fa* by rough syllables, when we have none more sonorous to substitute in their place in singing.

**DODECACHORD,** This is the title given by *Henri Glavean* to a large book of his composition, in which, adding four new tones to the eight used in his time, and which still remain in the Roman ecclesiastic canto's, he thinks he has re-established, in their purity, the twelve modes of *Aristoxenes*, who, however, had thirteen; but this pretence has been refuted by *J. B. Doni*, on his *Treaty on the Genera and Modes*.

**DOMINANT,** A dominant, or sensible concord, is that which is practised on the dominant of the tone, and which announces the perfect cadence. Every major perfect concord becomes dominant as soon as the minor seventh is added to it.

**DOMINANT,** Is, of the three essential notes of the tone, that which is a fifth above the tonic. The tonic and the dominant determine the tone, they are each the fundamental of a particular concord; whereas the mediant, which constitutes the mode, has no concord with it, and only forms part of that of the tonic.

*Monf. Rameau* generally gives the name of dominant to every note which bears a concord of the seventh, and distinguishes which bears the sensible concord, by the name of dominant tonic; but on account of the length of the word, this addition has not been adopted by artists, and they continue to call the 5th of the tonic simply dominant, and they do not call them dominants but fundamentals, the other notes bearing the concord of the seventh, which is sufficient for its expression, and prevents confusion.

DOMINANT,

**DOMINANT**, In church music, is the note which is most struck, in whatever of the tonic we may be. There are in church music a dominant and tonic, but no mediant.

**DORIC**, The doric mode was one of the most ancient in the Greek music, and it was the flattest and lowest of those which have been since called authentic.

The character of this mode was serious and flat, but of a temperate flatness, which rendered it proper for war, and religious subjects. Platon judges the majesty of the doric mode as very proper to preserve good morals; and 'tis for this reason that he permits the use of it in his republic.

It was called doric because it was in use amongst the people of that name. The invention of this mode was attributed to Thamaris of Thrace, who having been so unlucky as to defy the muses, and be conquered, he was deprived by them of his eyes and lyre.

**DOUBLE**, Double, or redoubled intervals, are all those which exceed the extent of the octave. In this sense, the tenth is double of the third, and the twelfth double of the fifth. Some give also the name of double intervals to those which are composed of two equal intervals, as the false fifth, which is composed of two minor thirds.

**DOUBLE**, They call double, the airs of a piece of music simple in itself, which are figured and doubled by the addition of many notes, which vary and adorn the canto, without disfiguring it. This is what the Italians call *variazioni*. (Vide **VARIATIONS**.)

There is this difference between the doubles and the flourishes, that the one are at the choice of the musician, which he may make or quit at pleasure to re-take the simple. But the double is never left, for when once it is begun, it must be continued throughout the whole of the air.


**DOUBLE**, Is also a word made use of in the opera of Paris, to mark out the actors next in order, who supply the place of the principal actors, when they leave them thro' sickness or fantasy, or when an opera is nearly at its end, and another is preparing. We must have seen an opera in doubles to have any conception of such a sight; and how great must be the patience of any one who would visit it in that condition. All the zeal of the good French citizens, well provided with ears to prove it, is hardly sufficient to undergo so detestable a charivari.

**TO DOUBLE**, To double an air, is to place doubles therein. To double a part, is to substitute one in the place of the principal actor. (Vide **DOUBLE**.)

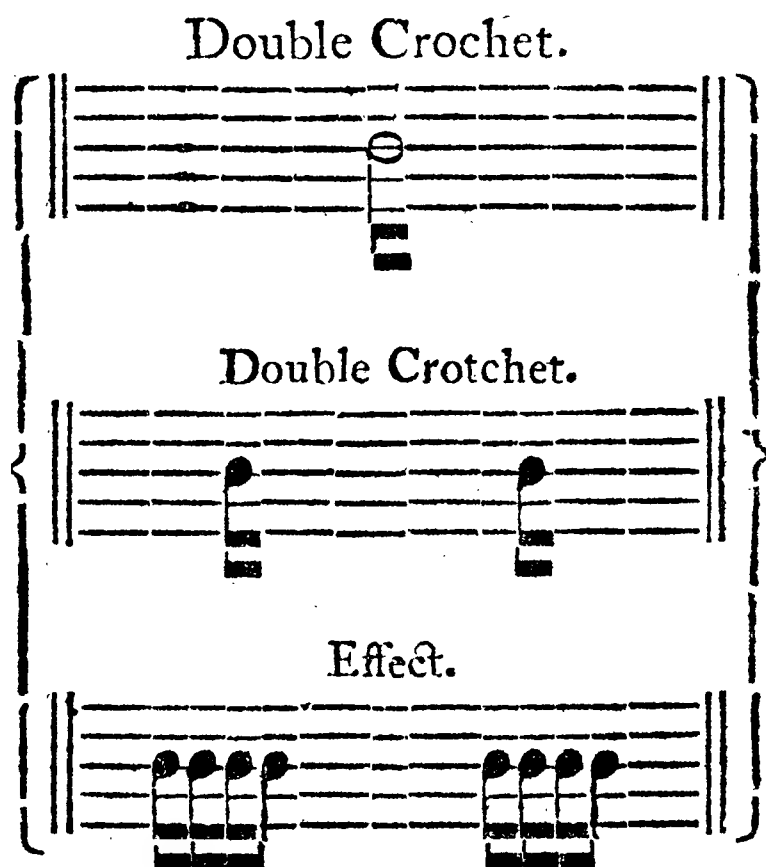
**DOUBLE CHORD**, A kind of play on the violin, which consists in touching two chords at the same time, making two different

different parts. "The double chord has often a great effect."  
 "It is difficult to play justly on the double chord."

**DOUBLE DEMI CROCHET**, A note in music equal to the fourth of a minum, or the half of a crotchet. Sixteen double demy crotchets are consequently necessary for a semibreve, or four timed measure. (Vide MEASURE, POWER of the NOTES.)

We here see the figure of the double demi crotchet tied or detached . It is called by that name on account of the double dark at its tail, and which we must distinguish from that properly called so, which makes the subject of the following article.

**DOUBLE CROCHET**, A note of abbreviation, which shews the division of the notes into double demi crochets, as the simple crotchet shews their division into demi crochets. Vide the Figure and effect of the double crotchet.



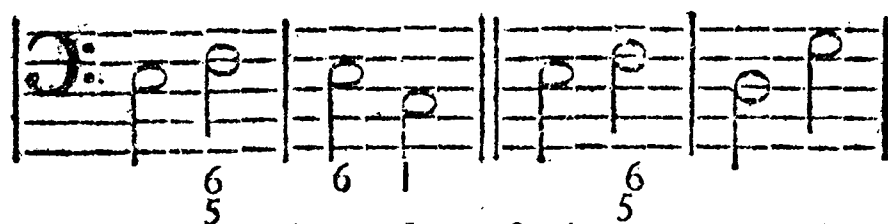
**DOUBLE EMPLOI**, A name given by Mons. Rameau to the two different methods by which the concord of the sub-dominant may be treated and considered, viz. as fundamental concord of the sixth added, or as concord of the greater sixth, varied from a fundamental concord of the seventh. In effect, these two concords bear exactly the same names, are cyphered in the same manner, and are used on the same chords of the tone, so that often we cannot distinguish which the author intended to use; but by the assistance of the following concord which prevents it, and which in the two cases is different.

To make this distinction, we consider the diatonic progress of the two notes, which form the fifth and sixth, and which making  
 between



between themselves an interval of the second, are one or the other the dissonance of the accord.

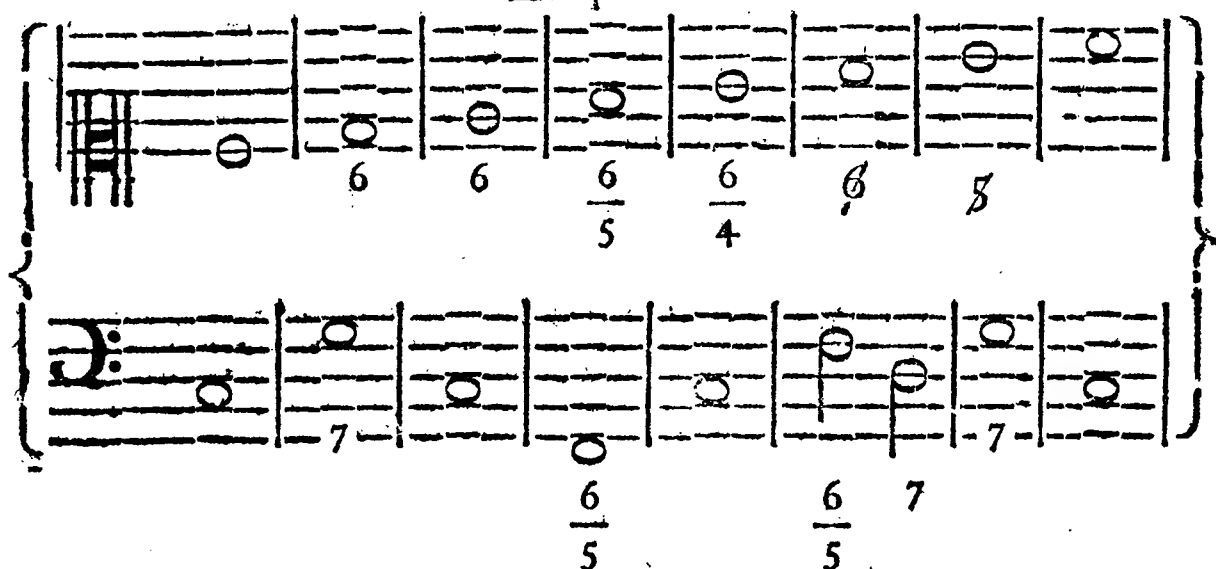
This progress is also determined by the movement of the bass. If then, of these two notes, the superior is dissonant, it will ascend a degree in the following concord. The inferior will continue in its place, and the concord will be a sixth added. If it is the inferior which is dissonant, it will descend in the following concord. The superior will remain in its place, and the concord will be that of the greater sixth. Vide the two cases in the double emploi.



In regard to the composer, the use he may make of the double emploi, is to consider the concord, which bears it in one light at going in, and another at going out; so that falling in with it, as with a concord of sixth added, it prevents it as a concord of greater sixth, and so reciprocally.

Monf. D'Alembert has shewn that one of the principal uses of the double emploi, is to be able to bear the diatonic succession of the gamut as far as the octave, without changing the mode, at least in ascending, for in descending it is changed. Vide the example of that gamut and its fundamental bass.

Gamut intirely in the same tone by favour of the Double Emploi.



It is evident, according to Monf. Rameau's system, that all the harmonic succession, which results from it, is in the same tone; for even on a pressing occasion, there are used only the three concords of the tonic, the dominant, and sub-dominant; this last, giving, by the double emploi, that of the seventh of the second note, which is used on the sixth.

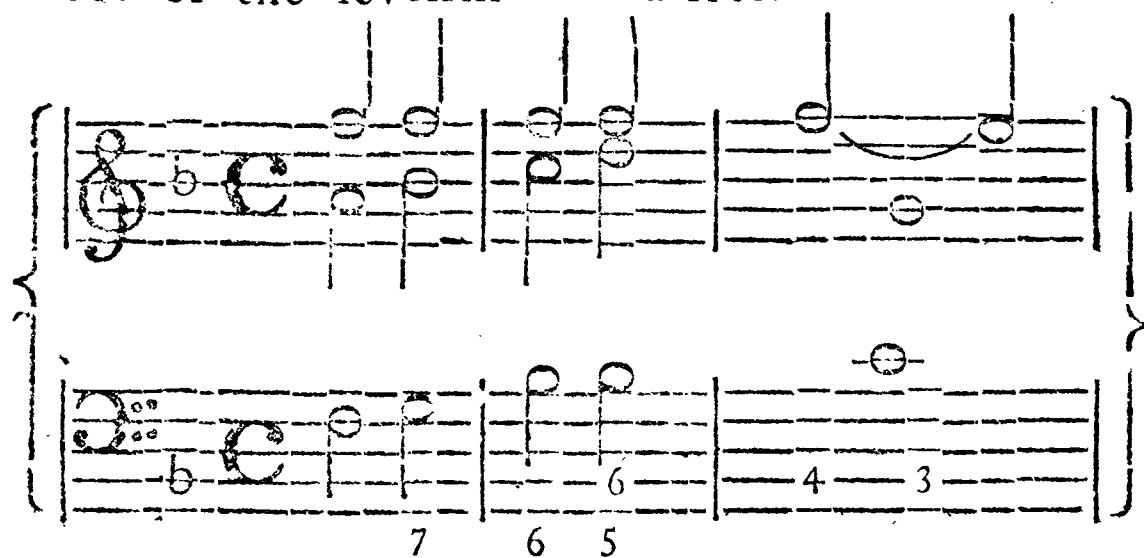
In regard to what Monf. D'Alembert adds in his Elements of Music, page 80, and which he repeats in the Encyclopædia, at the article double emploi, viz. that the concord of the seventh

re fa la ut, even tho' we should look upon it as varied fa la ut re, cannot be followed by the concord ut mi sol ut; I cannot be of his opinion in that point.

The proof which he gives of it, is, that the dissonance ut in the first concord cannot be prevented in the second, since it continues in its place; but in this concord of the seventh, re fa la ut, varied from this concord, fa la ut re, in the sixth added, it is not ut, but re, that is the dissonance, which consequently should be prevented by ascending on mi, as it really does in the following concord, in such a manner, that this course is forced within the bass itself, which from re could not, without an error, return to ut, but ought to ascend to mi, to prevent the dissonances.

Monf. D'Alembert then shews, that this concord, re fa la ut, preceded and followed by that of the tonic, cannot be authorized by the double emploi; and this is still very true, since that concord, tho' cyphered with a 7, is neither treated as a concord of the seventh at going in, or coming out, or at least it is not necessary to treat it as such, but only as a variation of the sixth added, whose dissonance is in bass; in which we should take notice, that this dissonance is never prepared: Wherefore, tho' in such a passage the double emploi is not brought in question, tho' the concord of the seventh is only there apparently, and impossible to prevent in the rules, this does not hinder the passage from being good and regular, as I have proved it to theorists, and as I am going to prove it to artists, by an example of this passage, which cannot assuredly be condemned by any of them, or justified by any other fundamental bass than mine.

Proof of the seventh varied from the sixth added.



I confess that this variation of the sixth added, which conveys the dissonances to the bass, has been blamed by Monf. Rameau; that author, taking for fundamental the concord of the seventh which results from it, has chosen rather to make the fundamental bass descend diatonically, and prevent a seventh by another seventh, than to explain this seventh by a variation.

I had

I had removed this error, and and many others in the papers which had continued a long time in Monsr. D'Alembert's hands, when he composed his Elements of Music, so that it is not his sentiments that I attack, but my own which I defend.

In regard to the conclusion, the double emploi cannot be used with too great reserve, and the greatest masters, are those who are most wary in employing it.

**DOUBLE FUGUE**, We make a double fugue, when in the continuance of a fugue already appearing, another fugue is introduced in a quite different method; and this second fugue must have its answer and entrance just as the first, which cannot be practised, but by four parts. We may, with more parts, make a still greater number of different fugues be heard, but the confusion is always to be feared, and 'tis then the master-piece of the art to treat them nicely. For this purpose, says Monsr. Rameau, we must observe, as much as possible, to make them enter only one after the other, particularly the first time, that their progression be varied; that they be differently characterized; and that, if they cannot be heard together, at least that a portion of the one be heard with a portion of the other. But these laborious tasks are made more for the scholar than the master: These are leaden weights tied to the feet of young runners, to make them more nimble when delivered from them.

**DOUBLE OCTAVE**, An interval composed of two octaves, otherwise called fifteenth, and which the Greeks called *dis-dia-pason*.

The double octave is in computation doubled from the simple octave, and is the only interval which does not change its name, when composed with itself.

**DOUBLE TRIPLE**, An ancient name of the triple of minims, or the measure of three for two, which is struck as three times, and contains a minim for each time. This measure is no longer in use but in France, where it even begins to be abolished.

**DOLCE**, This word in music is opposed to forte, and is written above the lines of the French music, and below the Italian, where we wish to lessen the noise, temperate and sweeten the vehemence of the sound, as in echo's and parts of accompaniment. The Italians often write *piano* in the same sense; but their critics in music declare them not to be synonymous terms, and that it is from abuse that most authors use them as such. They say, that *piano* signifies only a moderation of the sound, a diminution of the noise; but that *dolce* denotes, besides that, a method of playing piu soave, sweeter, more united, and answering almost to the word *louré* in French.

The dolce has three divisions, which we must take notice of, viz. the half play, the sweet, and the very sweet. However nearly these divisions may appear to be allied, a well-played band renders them very distinct and sensible.

DRAMATIC, This epithet is given to imitative music, proper to theatrical pieces of singing, as operas. It is also called lyric music. (Vide IMITATION)

DUET, This name is generally given to all kinds of music in two parts; but at present the sense is restrained to two reciting parts, vocal or instrumental; the simple accompaniments being excluded, which are looked upon as nothing. Wherefore we call duet an air for two voices, tho' there be a third part for the thorough bass, and others for the symphony. In a word, to constitute a duet, two principal parts are necessary, between which the air must be equally distributed.

The rules of the duet, and of two part music in general, are the most rigorous for the harmony; we therein refuse many passages, many movements, which would be permitted to a greater number of parts; for a passage or a concord which would please in a third or fourth sound, becomes disgusting to the ear without them. Moreover, we should be unpardonable to choose ill, having only two sounds to take in each concord. These rules were formerly still more severe, but all that has been now laid aside in these latter times, where all the world set up for composers.

We may view the duet in two lights, viz. simply as a two part air, such as, for instance, the first verse of the stabat of Pergoleſis, the most perfect and affecting duet that has come from the pen of any musician; or as a part of imitative and theatrical music, such as the duets in the opera scenes. In each case, the duet is, of all kinds of music, that which requires most taste, choice, and the most difficult to treat on, without going from the unity of melody. I beg to be permitted to make some observations here on the dramatic duet, whose particular difficulties are joined to those which are common to all the duets.

The author of the letter on the opera of Omphale, has sensibly remarked that the duets are out of nature in imitative music; for nothing is less natural than to see two persons speaking to each other for a certain time, either to say the same thing, or to contradict, without ever listening, or answering each other; and tho' this supposition might be admitted in certain cases, it could not still be used in tragedy, where this indecency is neither suitable to the dignity of the persons who speak, or to the education they are supposed to have.

There is nothing then but the transports of passion which can lead two heroic speakers to interrupt each other, to speak both

at once ; and, even in such a case, it is very ridiculous that these pretended discourses should be prolonged so as to make a complete piece on both sides.

The first method of preventing this absurdity is then, to place the duets only in lively and touching situations, where the agitation of the speakers throws them into a kind of delirium, capable of making the spectators and themselves forget those theatrical ornaments which strengthen the illusion in a cold scene, and destroying it in the heat of their passions. The second method is, to use the duet as much as possible in dialogue. This dialogue ought not to be phrased and divided into greater periods, as that of the recitative, but formed of interrogations, answers, short lively exclamations, which give occasion to the melody to pass alternately and nimbly from one part to another, without ceasing to form a continuance, which may remain on the ear. A third attention is, not to take all the violent passions indifferently for subjects, but only those which are susceptible of a sweet melody, and a little contrast suitable to duets, to render its tune accented, and its harmony agreeable. Rage and passion are too quick in their course. Nothing can be distinguished ; we hear only a confused roar ; and the duet has no effect. Moreover, the perpetual return of injuries and insults would be more suitable to herdsmen than heroes ; and this is exactly similar to the rhodomontade of those persons who prefer fear to danger. Much less should we make use of the soft accents, of chains, darts, flames, a flat and cold jargon, which passion never knew, and of which good music stands no more in need than good poetry. The instant of a separation, that wherein one of the two lovers goes to death, or into the arms of another, the sincere reformation of one faithless, the touching contention of a mother and her son, wishing to die for each other : All those moments of affliction, where one cannot fail of shedding delicious tears ; those are the true subjects to be treated in duo, with that simplicity of words which is suitable to the language of the heart.

All those who have frequented lyric theatres know how much the word addio only excites compassion and emotion in the whole audience. But so soon as a piece of wit, or well-turned phrase begins to be perceptible, the charm instantly vanishes, and is succeeded by immoderate laughter.

Herein are some observations which are necessary to the poet. In regard to the musician, it is his duty to find an air suitable to his subject, and distributed in such a manner, that each of the speakers, taking his turn, the whole compass may form only one melody ; which, without changing the subject, or at least without altering the movement, may pass in its progress

from one side to the other, without ceasing to be one. The duets which have the greatest effect, are those with equal voices, because their harmony is nearest connected; and amongst equal voices, those which have the greater effect are the treble, because their diapason, being sharper, is more distinct, and the tone more touching. The duets also of this space are the only ones employed by the Italians in their tragedies; and I don't doubt, but the use of castrati, in the parts of men, was due in some measure to this observation. But tho' there should be an equality between the voices, and unity in the melody, it must not be said that the two parts should be exactly similar in their turn of singing; for besides the diversity of styles suitable to them, it is very rare that the situation of two actors should so perfectly be the same, as that they ought to express their sentiments in the same manner; wherefore the musician ought to vary their accent, and give to each of the two the character which best paints the state of his soul, particularly in alternate recitative.

When we join the two parts together (which ought to be done seldom, and continue but little) we must find an air susceptible of a course by thirds or by sixths, in the which the second part may cause its effect, without being divided from the first, (*Vide UNITY OF MELODY.*) We must preserve the roughness of the dissonances, the piercing and strengthening sounds, the fortissimo of the orchestra for moments of disorder and transport, where the actors, seeming to forget themselves, carry their madness into the soul of every sensible spectator, and make him feel the power of a harmony nicely managed; but such periods should be rare, short, and artfully introduced. One must, by a sweet and affecting music, have already disposed the heart and ear to every emotion, that each of them may unite in their attention to these violent passions; and they must pass with that rapidity which is appropriated to our weakness; for when the agitation is too great, it cannot last, and whatever is beyond nature can make no impression.

As I cannot flatter myself that I am clearly understood throughout the whole of this article, I think it necessary to join an example, on which the reader, comparing my ideas, may have a more easy conception of them. It is drawn from the *Olympiad* of *Metastasio*; the curious will do well to look into the music of the same opera, by *Pergolese*, how this first musician of his time, and ours, has treated this duet; the subject of which is here presented.

*Megacles* having engaged to fight for his friend in the games, wherein the reward of the conqueror was the beautiful *Aristæa*, finds, in this same *Aristæa*, the mistress whom he adores, delighted with the combat, which he is about to sustain, and which she



she attributes to his love for him. Aristæa speaks on this subject the most affecting words, to the which he gives a no less tender answer, but with the secret despair of neither being able to recall his word, nor dispense, at the expence of his happiness, with that of a friend to whom he is indebted for his life: Aristæa, alarmed at the grief which she sees painted in his eyes, and which his broken and equivocal discourses confirm, acquaints him with her inquietude; and Megacles being unable to support, at the same time, his own despair, and the troubles of his mistress, leaves her without an explanation, and relinquishes her a prey to the most piercing sorrows. It is in this situation that they sing the following duet:

## M E G A C L E S.

Mia vita . . . . . addio  
Ne' giorni tuoi felici  
Ricordati di me.

## A R I S T Æ A.

Perchè così mi dici,  
Anima mia, perchè?

## M E G A C L E S.

Taci, bell' Idol mio.

## A R I S T Æ A.

Parla, mio dolce amor.

## T O G E T H E R.

MEGACLES.—Ah! che parlando, } oh Dio!  
ARISTÆA.—Ah! che tacendo, }  
Tu mi traffigi il cor!

A R I S T Æ A, *afide.*

Veggio languir chi adoro,  
Ne intendo il suo languir!

M E G A C L E S, *afide.*

Di gelosia mi moro,  
E non lo posso dir!

## T O G E T H E R.

Chi mai provò di questo  
 Affanno più funesto,  
 Più barbaro dolor ?

As much as this dialogue appears to be only the continuance of the scene, what collects it into one duet only, is the unity of the design, by which the musician re-unites all its parts, according to the poet's intention.

In regard to the burlesque duets, which are used in the intermediaries, and other comic operas, they are not generally for equal voices, but between the bass and the treble. If they have not the pathos of the tragic duets, in lieu of it they are susceptible of a more striking variety, of more different accents, and more expressive characters. All the gentility of coquetry, all the amusement of the laughable characters, all the contrast of the nonsense of one sex, and the cunning of the other ; lastly, all the accessory ideas of which the subject is susceptible ; all these may occur to throw a prettiness and an interesting harmony in these duets, the rules of which are in other respects the same as the preceding, in what regards the dialogue and unity of melody. To find a comic perfect duo to my liking, in all its parts, I will not omit the immortal author who has furnished me with these two examples, but will cite the first duet of the *Serva Padrona* : “ *Lo conosco a quegli' occhietti, &c. &c.*” and boldly as a model of agreeable singing, unity of melody, simple harmony, pure and brilliant accent, dialogue, and taste, in which nothing can fail, when it is well rendered, if the hearers who understand it, pay it that honour which it merits.

**DUPLICATION**, A term in church music. The intonation by duplication is made by a kind of perielesis, by doubling the penultimate note of the word, which terminates the intonation, which has no place but when this penultimate is immediately below the last. In that case, the duplication serves to mark it more fully, in the manner of a sensible note.

**DURATÉ**, By this term is called every thing which disgusts the ear by its effect. There are voices rough and sliding, instruments sharp and still rough, as well as compositions duraté. The roughness of the B sharp occasioned its formerly receiving the name of B duraté. There are rough intervals in melody, such as the diatonic progress of the three tones, whether in ascending or falling, and such in general are false relations. There are in the harmony rough concords, such as the triton, the superfluous fifth, and, in general, all the major dissonances. The continued roughness is disgusting to the ear, and renders a piece  
 of

of music disagreeable; but when managed with art, it answers the purpose of a claro obscure, and makes an addition to the expression.

---

## E.

**E** SI MI, E LA MI, OR SIMPLY E, Is the third sound of the gamut of Aretin, which is otherwise called mi. (Vide GAMUT.)

ECBOLE was, in the most ancient Greek music, an alteration of the enharmonic genus, when a chord was accidentally raised five diesis's above its ordinary concord.

EAR. This word is figuratively used as a musical term. To have an ear, is to have a sensible, clear, and true idea in hearing music; so that, whether for intonation, or for measure, we may be disgusted with the smallest error, and pleased with the beauties of that art, when hearing them. He has a bad ear who is continually fingering false, cannot distinguish the true intonation from the false, or who is not sensible of the precision in a measure, and strikes it at an unequal or counter time. Wherefore the word ear is always taken for a nicety in the sensation or judgment of that sensitive faculty. In this acceptation the word ear is never used, but with the singular, and with the partitive article. "To have an ear," &c. &c. &c.

ECHO. A returned or reflected sound, by a solid body, and which by that means is repeated, and renewed to the ear. This word is derived from the Greek ἦχος, a sound.

We call also by the name of echo, the place where the repetition is heard.

We distinguish the echos taken in this sense into two kinds, viz. 1st, the simple echo, which only repeats the voice once; 2dly, the double, or multiple, which repeats the same sounds twice, or more sounds.

In simple echos, there are some tonics, that is, which only repeat the musical and sustained sound; and others syllabic, which repeat also the words of the voice.

We may draw a part from multiple echos, to form concords and harmony with a single voice, by making between the voice and echo a kind of canon, the measure of which should be directed on the time which passes betwixt the pronounced sounds. This method of making to one's self alone an harmonic concert,

must, if the finger be ingenious, and the echo strong, appear astonishing, and almost magical to an unprepossessed hearer.

The name of echo is conveyed in music to those kinds of airs or pieces, in the which, by the imitation of the echo, are repeated now and then, sweet or strong, a certain number of notes. It is on the organ that this method of playing is most commonly used, on account of the facility there is in forming echos on the positive: We may also form echos on the harpsichord, by means of the smaller keys.

The Abbé Broffard says, that the word echo is sometimes used in the place of dolce, or piano, to denote, that the voice, or instrument, should be sweetened as to form an echo. This custom no longer subsists.

**ECHOMETRE.** A kind of graduated scale, or rule divided into several parts, which is used to measure the duration or length of sounds, to determine their different powers, and even the references of their intervals.

This word is derived from the Greek *ἦχος*, a sound, and *μετρον*, a measure. I will not undertake the description of this machine, because no use will ever be made of it; and, as the best echometre is a sensible ear, and long experience in music; those who wish to know more of it, may consult the work of Monsieur Sauveur, inserted in those of the Academy of Sciences, 1701. They will there find two scales of this kind, one of Monsieur Sauveur, and the other of Monsieur Loulie. (Vide Chronometre.)

**ECLYSE** was, in the most ancient Greek music, an alteration in the enharmonic genus, when a chord was accidentally lowered three diesis's below its ordinary concord; wherefore the eclyse was contrary to the spondeasm.

**EIGHTEENTH.** An interval which comprehends seventeen conjoint degrees, and consequently eighteen diatonic sounds, counting the two extremes. This is the double octave of the fourth. (Vide fourth.)

**EFFECT.** An agreeable and strong impression which an excellent music imprints on the ear and mind of an audience; wherefore, the single word effect signifies a pleasing and fine effect in music. We not only say of a work, that it has an effect, but distinguish under the name of circumstances, which are the cause of the effect, all those wherein the produced sensation appears superior the methods employed to raise it.

A continued practice may teach the knowledge of what things produce an effect when laying before the eye, but it is genius only which can discover them. It is the fault of all bad composers and beginners to load parts upon parts, instruments on instruments, to discover the effect which follows from them, and to open, as an ancient said, a wide mouth to blow on a small flute. One would say,  
to

to see their partitions so loaded, so numerous, that they intend to surprise by prodigious effects; and if in hearing the whole you are surprised, 'tis to hear a trifling piece of music, bald, confused, without effect, and more proper to stun the ears than to delight them. On the contrary, the eye wanders over the partitions of great masters to discover those effects, ravishing and sublime, which their music, when executed, produces. It is, that a continued detail is ignorant of true genius, that it affords no amusements by a quantity of silly objects, but that it moves you by great effects, and the strength and simplicity of it united, always form its character.

**ELEGY.** A kind of composition for the flute, invented, as it is said, by Sacadas, of Argos.

**ELEVATION.** The elevation of the hand or foot, in striking the time, serves to mark the weaker time, and is properly called raised. Among the ancients it was the contrary. The elevation of the voice in singing, is the movement by which it is carried into sharp.

**ELEVENTH.** Replique, or octave of the fourth. This interval is called the eleventh, because eleven sub diatonics must be formed to pass from one of these terms to the other.

Monsieur Rameau wished to give the name of eleventh to the concord which is generally called fourth; but as this denomination has not been followed, and as Monsieur Rameau himself has continued to cypher the same concord with a four and not an eleven, we must conform to custom. (Vide concord, fourth supposition.)

**ELINE.** A name given by the Greeks to a song of the weavers. (Vide SONG.)

**ENDEMATIA** was the air of a kind of dance peculiar to the inhabitants of Argos.

**ENHARMONIC**, one of the three genera of the Greek music, often also called harmony by Aristoxenes and his followers.

This genus resulted from a particular division of the tetrachord, according to which, the interval which is placed betwixt the lichanos, or third chord, and the mesis, or fourth being of a triton, or third major, there continues to complete the tetrachord in flat, only a semi tone to divide into two intervals, viz. from the hypaton to the parhypaton, and from the parhypaton to the lichanos. We will explain under the word genus how the division was made.

The enharmonic genus was the sweetest of the three, in the opinion of Aristides Quintilian. It passed as very ancient, and the generality of authors, attributed the invention of it to Olympus, the Phrygian. But his tetrachord, or rather his diatessaron of this genus, contained only three chords, which formed together

two uncomposed intervals, the first of a semi tone, and the other a third major; and from these two intervals alone, repeated from tetrachord to tetrachord, resulted at that time all the enharmonic genus. 'Twas not, till after the time of Olympus, that they thought of inserting, in imitation of the other genera, a fourth chord between the two first, to form the division which I have just mentioned. We may see the connections, according to the systems of Ptolomy and Oristoxenes, at the word diatonic.

This genus, so surprising, so admired by the ancients, and according to some, the first discovered of the three, kept not its renown long. Its extreme difficulty rendered it soon forsaken, in proportion as art gained combinations by losing its energy; and when the agility was a substitute for the nicety of the ear. Plutarch also finds great fault with the musicians of his time, for having lost the finest of the three genera, and daring to say, that its intervals were not sensible, as if every thing that escaped their gross senses (adds that great philosopher) must be out of nature.

We have at present a kind of enharmonic genus entirely different from that of the Greeks. It consists, as the two others, in a peculiar progression of harmony, which engenders, in the course of the parts of the enharmonic intervals, by using it successively, or, at the same time, between two notes, which are a tone from each other, the B flat of the inferior, and the diesis of the superior. But though, according to the rigor of the connections, this diesis and B flat ought to form an interval betwixt themselves, (vide scale, and fourth of a tone) This interval is found void, by means of the temperament, which, in the established system, makes the same tone serve two purposes, which does not prevent such a passage from producing, by the force of modulation and harmony, a part of the effect, which we seek in the enharmonic transitions.

As this genus is but little known, and as our authors are contented to give some notions of it too succinct, I think I must explain it here a little more at length.

We must then observe, that the concord of the seventh diminished, is the only one on which we can practice passages truly enharmonic; and that by virtue of that singular propriety which it has of dividing the entire octave into equal intervals. Let us take in the four sounds which compose this concord, that which we wish for fundamental, and we shall always equally find, that the three other sounds form on this a concord of 7th diminished. Moreover, the fundamental sound of the concord of 7th diminished is always a sensible note; so that, without changing any thing in this concord, we may, by a method of double, or quadruple employ, make it serve successively on four different fundamentals, viz. on four different sensible notes.

It



It follows thence, that this same concord, without having any change, either in the accompaniment or the bass, may bear four different names, and consequently be cyphered in four different methods, viz. with a 7  $\flat$  under the name of diminished seventh; with a 6 + under the name of major sixth and false fifth, with a + 4

♯

$\flat$

under the name of minor third and triton; and lastly, with a + 2 under the name of superfluous second. It must be understood, that the cleff should be numbered differently, according to the tones in which we are supposed to be.

Here then are four methods of going from a concord of diminished seventh, by supposing ourselves successively in four different concords; for the fundamental and natural direction of the sound, which bears a concord of diminished seventh, is to be resolved on the tonic of the minor mode, of which it is a sensible note.

Let us next imagine the concord of the diminish'd seventh on ut diesis, a sensible note. If I take the third mi as fundamental, it will become a sensible note in its turn, and consequently will express the minor mode of fa; moreover, this ut diesis rests certainly in the concord of mi, a sensible note, but it is in quality of re B flat, viz. of the sixth note of the tone, and of the diminish'd seventh of the sensible note; wherefore this ut diesis, which, as a sensible note, was obliged to ascend into the tone of re, becomes re B flat in the tone of fa, and is obliged to descend as diminish'd seventh, which is an enharmonic transition. If, instead of the third, we take in the same concord of ut diesis the false fifth sol, as a new sensible note, the ut diesis will again become re B flat, in quality of the fourth note, another enharmonic passage. Lastly, if we take the diminished seventh itself as a sensible note, instead of si B flat, we must necessarily consider it as la diesis, which forms a third enharmonic passage on the same concord.

Through the means of these four different methods of viewing the same concord successively, we pass from one tone to another, which appears very distant from it. We give a different progress to the parts from that, which, in their first place, they ought to have; and these passages when managed a propos, are capable, not only of surprising, but even delighting the audience, when well conducted.

Another source of variety, in the same genus, is drawn from the different methods in which the accord may be resolved which announces it; for though the most natural modulation would be to pass from the concord of diminished seventh, on the sensible note, to that of the tonic in the minor mode, we may, by substituting the major for the minor third, render the mode major, and even

even add to it the seventh, to change that tonic in dominant, and by this means to pass into another tone. By means of these different reunited combinations, we may get out of the concord in twelve ways. But, from these twelve, there are only nine, which, giving the change of diefis into B flat, or reciprocally, can be truly enharmonic; moreover, in these nine different modulations, there are only three different sensible notes, each of which is resolved by three different passages; so that, by taking it in its true sense, we find on each sensible note no more than three truly enharmonic passages, all the rest not being really enharmonic, or having connection with some one of the three first. (Vide an example of all these passages.)

*Twelve methods of going out of a concord of diminished seventh, wherein are comprised the three enharmonic transitions, and their combinations.*

Methods I and II of transitioning from a diminished seventh chord. Each method is shown in two staves: the top staff is in treble clef and the bottom staff is in bass clef. The top staff starts with a diminished seventh chord (b7) and the bottom staff starts with a diminished seventh chord (7b). The transitions are indicated by asterisks (\*) and the final notes are marked with a 4.

I. II.

Fundamental Bafs.

Methods V, VI, VII, and VIII of transitioning from a diminished seventh chord. Each method is shown in two staves: the top staff is in treble clef and the bottom staff is in bass clef. The top staff starts with a diminished seventh chord (b7) and the bottom staff starts with a diminished seventh chord (7b). The transitions are indicated by asterisks (\*) and the final notes are marked with a 6.

V. VI. VII. VIII.

Methods IX, X, XI, and XII of transitioning from a diminished seventh chord. Each method is shown in two staves: the top staff is in treble clef and the bottom staff is in bass clef. The top staff starts with a diminished seventh chord (b7) and the bottom staff starts with a diminished seventh chord (7b). The transitions are indicated by asterisks (\*) and the final notes are marked with a 7.

IX. X. XI. XII.

It

It has been frequently attempted to make entire pieces in the enharmonic genus, in imitation of the modulations in the diatonic genus. To give a kind of rule to the fundamental directions of this genus, it has been divided into diatonic enharmonic, which proceeds by a succession of major semi tones, and in chromatic enharmonic, which proceeds by a succession of semi tones minor.

The air in the first kind is diatonic, because its semi tones are major, and it is enharmonic, because two major semi tones together form a tone of enharmonic interval too strong. To form this kind of air, we must make a bass which descends from fourth, and ascends from major third alternatively. A part of the trio between the parçæ in the opera of Hippolitus, is of this kind, but it could never be executed in the opera house at Paris, though Monsieur Rameau assures us, that it has been performed in other places, by the consent and desire of the musicians, and had a surprising effect.

The air of the second kind is chromatic, because it proceeds by minor semi tones. It is enharmonic, because the two consecutive semi tones minor form too weak a tone of an enharmonic interval.

To form this kind of air, we must make a fundamental bass, which descends from minor third, and ascends from major alternatively. Monsieur Rameau acquaints us, that in the opera of the Gallant Indians, this kind of music met with an applause that shook the very earth; but he was so ill used, as to be obliged to change it into a common music. (Vide the Elements of Music by Monsieur Alembert, page 91, 92, 93, and 166.

In spite of the example cited and authorized by Monsieur Rameau, I think it my duty to acquaint young artists, that the enharmonic diatonic, and enharmonic chromatic, appear to me proper to be rejected as genera; ; and I cannot think that a piece of music, modulated in this manner, even let the execution be the most perfect, can have the smallest merit. My reasons are, that the rough passages of one idea to another, at a great distance, are so frequent therein, that it is not possible for the mind to follow these transitions with the same rapidity as the music presents them; that the ear has not time to perceive the secret and composed connection of the modulations, or to understand the supposed intervals; that there is no longer any shadow of tone, or mode, in such successions; that it is equally impossible to retain that from which we go, or to foresee that to which we are directed; and that amidst all this, we no longer have any idea where we are. The enharmonic is no more than a passage unexpected, the surprising impression of which is formed strongly, and continues a long time; a passage, consequently, which ought not to be repeated too often, or too roughly, for fear the idea of the modulation

lation should be troubled, and become entirely lost ; for as soon as we begin to hear such concords as have so sensible connection, and no common foundation, the harmony has no longer any union, or apparent continuance, and the effect which results from it is no more than an empty noise, without union or taste. If Monsieur Rameau, when he spent his time in useless calculations, had paid a greater attention to the metaphysic of his art, it is to be supposed, that the natural fire of that artist had produced prodigies, the seed of which was in his genius, but which his prepossessions have always stifled.

I do not even think, that simple enharmonic transitions can ever have any success, either in chorusses or airs, because each of these pieces forms a whole, wherein should reign unity, and whose parts ought to have an union betwixt themselves more sensible than this genus can define it.

What then is the real situation for the enharmonic ? It is, in my opinion, the forced recitative. It is in a sublime and pathetic scene, when the voice should multiply and vary the musical inflexions in imitation of the grammatical oratorical accent, an accent often impossible to be defined ; it is in such a scene, I affirm, that the enharmonic transitions are well placed, when we know how to manage them for sublime expressions, and strengthen them by strokes of symphony, which suspend the words, and give them force to the expression. The Italians, who use this method admirably, use it only on this plan. We may see in the first recitative of the Orpheus of Pergolese, a striking and simple example of the effects which this great musician knew how to draw from the enharmonic, and how far from producing a rough modulation. These transitions, when they become natural and easy to sound, give an energetic sweetness to the whole declamation.

I have already said, that our enharmonic genus is entirely different from that of the ancients. I will add, that though we have not, like them, enharmonic intervals to sound, this does not hinder the modern enharmonic from being of a more difficult execution than theirs. Amongst the Greeks, the enharmonic intervals, purely melodious, did not require, either in the finger, or audience, any change of ideas, but only a great delicacy in the organs of hearing ; whereas, in our music, we must add to the same delicacy an exact knowledge and exquisite sentiment of the roughest and most unnatural harmonic metamorphoses ; for if we do not hear the phrase, we cannot give the words their necessary sense, nor sing true in an harmonious system, if we do not feel the harmony.

**TO ENFORCE**, is to pass from the dolce to the forte, or from the forte to fortissimo, not on a sudden, but in a regular gradation, by breathing and augmenting the sounds, whether on a lession, or on

on a continuance of notes, till we have attained what answers to the term of enforced : We then re-take the ordinary play. The Italians express the word enforced in their music by the term *crescendo*, or *rinforzando* indifferently.

**ENTRANCE.** The air of a symphony, by which a ballet is begun.

The word entrance is used also in an opera, to signify an entire act in those ballet operas, each act of which forms a separate subject. “ The entrance of Vertumnus in the elements. The entrance of the Inca’s in the gallant Indians.”

Lastly, Entrance is also said of the instant in which each part which follows another begins to make itself heard.

**ÆOLIAN.** The æolian tone or mode, was one of the five modes which were the chief in the Greek music, and its fundamental chord was immediately above that of the Phrygian mode. (Vide mode.)

The æolian mode was flat, by the report of Lafus, “ I sing, says he, Ceres, and her sister Melibæa, spouse of Pluto, in the æolian mode filled with flatness.”

The name of æolian, which this mode bore, did not derive itself from the Æolian Islands, but from the Eolia, a country in Asia Minor, where it was first used.

**EPIAULIA.** A name which the Greeks gave to a song of the millers, called otherwise *hymea*. (Vide song.)

**Quere.** Does not the word squawl take its derivation from this word ? The squawling of a woman, or child who weeps and is lamenting in the same tone, has some resemblance with the notes of a mill, and, by the metaphor, to that of a miller.

**EPILENIA.** A song of the grape-gatherers, which was accompanied by the flute. (Vide the fifth book of the *Athenæa*.)

**EPINICION.** A song of victory, by which was celebrated amongst the Greeks the triumph of a conqueror.

**EPISYNAPHIA,** is, by the traditions of Bacchus, the conjunction of three consecutive tetrachords, as are the *meson*, *hypaton*, and *synnemenon*. (Vide system tetrachord.)

**EPITHALAMIUM.** A nuptial air, which was formerly sung at the door of the new-married spouses, to wish them a happy union. Such songs are not in use amongst us ; for we know very well that it is a lost labour. When they are made between friends and acquaintance, we generally substitute, in the place of those simple and chaste thoughts, some ones equivocal and obscene, more conformable to the taste of the age.

**EPITRITE.** The name of one of the rhimes in the Greek music, with which the times were proportioned in sesqui tierce, or from three to four. This rhyme was represented by the foot, which the poets and grammarians call also epitrite, a foot com-

posed of four syllables, the two first of which are effectually proportioned to the two last, as from three to four. (Vide rhyme.)

**EPOD.** An air of the third couplet, which, in odes, terminated what the Greeks call the period, the which was composed of three couplets, viz. the strophe, the antistrophe, and the epod. The invention of the epod was attributed to Archilochus.

**EPTAMERIDES.** A name given by Monsieur Sauveur to one of the intervals of his system, lain out in the memoirs of the academy anno 1701. This author then divides the octave into forty-three parts, or merides, then each of those into eptamerides, so that the intire octave comprehends three hundred and one eptamerides, which he again subdivides. (Vide decamerides.) This word is formed from *ἑπτα*, seven, and *μέρις*, part.

**EPTAPHONIA.** The name of a portico in the city of Olympia, in which they had managed an echo, which repeated the voice seven times together. There is a great appearance, that the echo was found there by chance, and that then the Greeks, quacks in their nature, have given the art of it to an architect.

**EQUISONANCE.** A name by which the ancients distinguished the consonances of the octave and double octave from the rest, the only ones which form a paraphonia. As there has often been a want of the same distinction in modern music, we may make use of it with so much the less scruple, as the sensation of the octave is often confounded to the ear with that of the unison.

**EUDROMOS.** A name of the air which the hautboys played in the Sthenian games, instituted in Argos in honour of Jupiter. Hierax of Argos was the inventor of this air.

**EQUAL.** A name given by the Greeks to the system of Aristoxenes, because that author generally divided each of his tetrachords into thirty equal parts, a certain number of which he assigned to each of the three divisions of the tetrachord according to the genus, and the nature of that genus, which he wished to establish. (Vide genus, system.)

**EVÖVÆ.** A barbarous word, formed of six vowels, which denote the syllables of the two words, *seculorum amen*, and which is only used in church music. It is on the letters of this word that we find marked in the psalters and antiphonaries in the catholic churches, those notes, by which, in each tone, and in the different modifications of the tone, we must terminate the staves of the psalms and canties.

The evovæ always begins by the dominant of the tone of the antient, which precedes it, and always finishes by the final.

**EUTHIA.** A term of the Greek music, which signifies a continuance of notes proceeding from the flat to sharp. The euthia was one of the parts of the ancient melopæa.

To



**TO EXECUTE.** To execute a piece of music, is to sing, and play all the parts which it contains, as well vocal as instrumental, in the unity which they ought to have; and to render it such as it is pricked in the partition. As music is formed to be heard, we cannot judge well of it but by its execution. Such a partition appears admirable to the eye, which cannot be heard in its execution without disgust; and another may perhaps appear plain and simple to the eye, the execution of which delights by unexpected effects. Under-hand composers, attentive to give symmetry and play to all their parts, appear generally the most ingenious people in the world, whilst we judge of their works only with the eye. Sometimes also they have the cunning to place so many different instruments, so many parts in their music, that we cannot, without great difficulty, collect together all the subjects necessary to execute it.

**EXECUTANT.** A musician, who performs his part in a concert. It is the same thing as concertant. (Vide concertant.)

**EXECUTION.** The action of executing a piece of music. As music is generally composed of many parts, whose exact connection, whether for the intonation, or the measure, is very difficult to observe, and the strength of which depends more on taste than signs; nothing is so rare as a good execution. It is a trifle to read exactly the music by the notes; we must enter into all the ideas of the composer, feel and render the fire of the expression, and have particularly an ear true, and always attentive to listen and follow the concinnity. We must, in French music, particularly be careful, that the principal part understands the art of softening or augmenting the movement, according to what the taste in singing, the extent of the voice, and the action of the finger require. Consequently, all the other parts must be confined, and attentive to the following of the former. The concinnous in the opera divided into parts, wherein the music has no other measure than that of the action, would be, in my opinion, the most admirable thing in execution.

“ If the French (says St. Evremond) by their commerce with  
 “ the Italians, have attained the art of composing with more free-  
 “ dom; the Italians also have gained, by a commerce with the  
 “ French, in what they have learnt from them, the art of ren-  
 “ dering their execution more agreeable, more affecting, and  
 “ more perfect.” The reader will, I imagine, dispense with my commentary on this passage. I shall only add, that the French imagine the whole world to be employed in their music, while, on the contrary, in three parts of Italy, the musicians do not even know that there exists a French music different from theirs.

We call also *execution* the facility of reading and executing an instrumental part; and we say, for instance, of a symphonist, that

he has great execution when he performs correctly, without hesitation, and at first sight, the most difficult things. Execution, taken in this sense, depends particularly on two things; first, from a perfect knowledge of the touch, and fingering of his instrument; and, secondly, from a long custom in reading music, and phrasing it at sight; for while we see separate notes, we always hesitate in the pronunciation; we acquire a great facility in execution, only by uniting them in the common sense which they ought to form, and in placing the thing itself in the place of the sign. 'Tis in this manner that the memory of the reader is not of less assistance than his eye, and that he would read with difficulty an unknown language, though written in the same characters, and composed of the same words, which he reads without hesitation in his own.

**EXPRESSION.** A quality, by which the musician has a lively feeling, and renders with energy all the ideas which he should utter, and all the sentiments which he should express. There is one expression in composition, and another in execution; and it is from their concurrence, that the most musical and most agreeable effect results.

To give expression to his works, the composer should seize and compare all the connections which may be found betwixt the strokes of his object and the productions of his art; he ought to know or feel the effect of every character, so that he may convey that which he has chosen to a degree suitable to it: for as a good painter does not give an equal light to all his objects, an ingenious musician should neither give the same energy to all his sentiments, or the same force to all his paintings; and should fix each part in its convenient place, not so much to give powers to it alone, as to afford a greater effect to the whole.

After having carefully sought what he should say, he then seeks the method how; and here begins the application of the precepts in that art, which was a particular language, in the which the musician wishes to make himself understood.

The melody, harmony, movement, and choice of instruments and voices, are the elements of musical language; and the melody, by its immediate connection with the grammatical and oratorical account, is that which gives the character to all the rest. Wherefore, it is always from the air that the principal expression should be drawn, as well in instrumental as vocal music.

That then what we endeavour to render by the melody is the tone, by which we express the sentiments which we wish to represent, and we ought to be very careful to imitate in that the theatrical declamation, which itself is no more than an imitation, but to follow the voice of nature, whose accents are without affectation, and without art. Wherefore the musician must first seek a kind of melody which may furnish musical inflexions, most convenient

venient to the sense of the words, by always subordinating the expression of the words to those of the thought, and even those to the situation of the soul of the speaker; for when we are deeply affected, every discourse which we hold takes a tint of the general sentiment which reigns in us, and we do not quarrel in regard to what we love, in the same tone which agitates us in an indifferent matter.

Our words are differently accented according to the different passions that inspire them; sometimes sharp and vehement, sometimes careless and loose; again varied and impetuous, and then equal and tranquil in its inflexions. From thence the musician draws the difference of the modes in singing which he uses, and of the different places in the which he maintains his voice; causing it to proceed in the lower parts by small intervals, to express the languor of sorrow and melancholly, drawing from it, in the higher parts, sharp sounds from passion or grief, and conducting it rapidly through all the intervals of his diapason, in the agitation of despair, or the opposition of contrasted passions. We must particularly observe, that the charm of music does not consist only in the imitation, but in an agreeable imitation, and that the declamation itself, to cause so great an effect, must be subordinate to the melody; so that we cannot paint a sentiment without giving it that charm which is inseparable from it, nor touch the heart, unless we please the ear. And this also is very conformable to nature, which gives the tone of sensible persons an unknown affecting and delightful inflexion, which one without feeling can never inherit. Do not then attempt to take rhodomantade for expression, or roughness for energy; neither give a frightful picture of the passions you wish to express; and, in a word, do not, as in the French Opera, where the tone of passion is like to the cries from a cholic, much more than the accents of love.

The physical pleasure which results from harmony, augments in its turn the moral pleasure of the imitation, by uniting the agreeable sensations of the expressive concords of melody, on the same principle as I have just mentioned. But harmony does still more: it enforces the expression itself, by giving a greater justness and precision to melodious intervals; it animates their character, and specifying exactly their place in the order of modulation, it recalls what preceded, denotes what ought to follow, and thus unites the phrases in the air, as ideas are united in a discourse. Harmony, examined in this manner, furnishes the composer with variety in expression, which escapes him when he seeks for expression in one harmony alone; for then, instead of animating the accent, he stifles it by his concords; and all the intervals, confounded in a continued concourse, offer nothing more to the ear than a continuance of fundamental sounds, which have nothing  
affecting

affecting or agreeable, and whose effect has no impression on our mind. What then must the harmonist do to form a concurrence with the expression of the harmony, and give it a greater effect? He must be careful to avoid to cover the principal sound in the combination of concords; he must subordinate all his accompaniments to the singing part; he must sharpen the energy by the concurrence of the other parts; he must enforce the effect of certain passages by sensible concords; he must introduce others by supposition or suspension, by counting them as nothing on the bass; he must give freedom to the strong expressions by major dissonances, and must retain the minor for softer sentiments. One while he must unite all his parts by continued and flowing sounds; another while he will contrast them in the air by sharp notes. One while he will strike the ear by full concords, and again enforce the accent by the choice of a single interval. On every side he will render the union of modulation present and sensible, and will make the bass and its harmony serve to determine the situation of each passage in the mode, so that we can never hear an interval, or stroke in singing, without feeling at the same time his connections with the whole.

In regard to the rhyme, formerly so powerful in giving force, variety, and taste, to poetic harmony; if our languages, less accented, and less prosodic, have lost the charm which resulted from them, our music substitutes in its place, another more independant of the discourse, in the equality of the measure, and in the different combinations of its times, whether in the whole at a time, or separately in each part. The quantities of language are almost lost under those of the notes, and the music, instead of speaking with the words, borrows, in some respect, a peculiar language from the measure. The force of the expression consists in the part, in re-uniting those two languages as much as possible, and in being careful, that, if the measure and rhyme speak not in the same method, they may at least speak the same things.

The vivacity, which gives a gaiety to all our movements, ought to give the same also to the measure. Sorrow confines the soul, softens the movements, and the same languor is felt in the airs which it inspires; but when the grief is lively, or when the soul is agitated by mighty combats, the words are irregular; its direction is alternate with the slowness of the spondee, and the rapidity of the pyrrhic, and is often retarded instantly as in the forced recitative. It is for this reason, that the most expressive music, or at least the most passionate, is generally that wherein the times, though equal betwixt themselves, are most unequally divided; whereas the image of sleep, repose, peace of the soul, &c. are readily painted with equal notes, whose course is neither quick nor slow.

One

One observation, which the composer ought not to neglect, is, that the more the harmony is removed, the less lively the movement should be; so that the mind may have time to catch the course of dissonances, and the quick union in the modulations; it is only the last transports of passion which permit an alliance betwixt the rapidity of the measure and the roughness of the concords. Then when the senses seem to vanish, and by dint of agitation the actor appears to have no more knowledge where he is, this energetic disorder may be increased, so as to force its entrance into the soul of the spectator, and even render him insensible to every object. But unless you are sublime and great, you must be cold and insipid. Throw your audience into an insensibility, or be cautious not to fall into it yourself; for he who loses his reason is nothing more than a madman in the eyes of those who preserve it, and madmen interest but little.

Though the greatest force in expression is drawn from the combination of sounds, the quality of their tone is not indifferent to cause that effect. There are strong and sonorous voices, whose quality is good for a strong impression; others light and flexible, good for things of execution; and some sensible and delicate, which touch the heart by sweet and pathetic sounds. In general, the treble, and all sharp tones, are proper for expressing tenderness and sweetness; the bass and concordant for transports of passion; but the Italians have banished the bass from their tragedies, as a part whose notes are too rough for the heroic genus; and have substituted in their places the tenor, whose note has the same character with a more agreeable effect. They use this same bass more suitably in the comic for under parts, and generally for all professional parts.

Instruments also have very different expressions, according to the sound, whether strong or weak, whether the tone be sharp or sweet, the diapason sharp or flat, and whether there can be drawn any sounds in a greater or smaller quantity. The flute is tender, the hautboy gay, the trumpet warlike, the horn sonorous, majestic, and proper for great expression. But there is no instrument from which there can be drawn a more varied and universal expression, than the violin. This admirable instrument forms the foundation of every orchestra, and suffices, to a great composer, to draw from it all the effects which a bad musician seeks in vain in the alliance of different instruments. The composer ought to be acquainted with the handling the violin, to finger his airs, to dispose his arpeggio's, to know the effect of the chords *a vide*, and to use and choose his tones according to the different characters which they have on this instrument.

It will be useless for the composer to have a knowledge of animating his work, unless the fire which ought to reign therein, is  
transmitted



transmitted to the soul of those who execute it. The finger, who fees the notes of his part only, is not in a condition of catching the expression of the composer, or to give any to what he sings, unless he has a true idea of the sense. We must understand what we read to give a true comprehension of it to others, and it is not sufficient to be sensible in general, unless we are particular also in regard to the energy of the language in which we speak. Begin then by a complete knowledge of the character of the air which you are going to render, of its connection with the sense of the words, the distinction of its phrases, the accent which it has peculiar to itself, that which is supposed in the voice of the executant, the energy which the composer has given to the poet, and those which in your turn you also can give the composer. Then relax your organs to all the fire that their considerations may have inspired you with; do the same as you would, were you at the same time poet, composer, actor, and singer, and you will receive all the expression that you can possibly give the work which you are about to perform. By this method it will naturally follow, that you must place delicacy, and such ornaments in your airs, which can be but elegant and pleasing; fire and sharpness in those which are gay and animated; sighs and plaints in those which are tender and pathetic; and the whole agitation of the forte piano, in the transports of violent passions throughout the whole, where the musical accent is united to the oratorical, throughout the whole where the measure is sensibly felt, and serve as guides to the accents of singing, wheresoever the accompaniment and the voice can accord and unite the effects in such a manner, that nothing but melody results, and that the deceived audience attribute to the voice the passages with which the orchestra embellishes it; lastly, wheresoever the ornaments, ingeniously managed, can bear witness of the facility of the finger, without covering and disfiguring the air, the expression will be sweet, agreeable, and strong; the ear will be delighted, and the heart moved; the physical and the moral will jointly concur to the pleasure of the audience, and there will reign such a concord betwixt the words and air, that the whole will appear to be only a delightful language, which can express every thing, and always please.

**EXTENT.** The difference of two given sounds, which have intermediaries, or the sum of all the intervals comprised betwixt the two extremes. Wherefore, the greatest possible extent, or that which comprehends all the rest, is that of all the sensible or perceptible sounds from the flattest to the sharpest, according to the experience of Monsieur Euler; all this extent forms an interval of about eight octaves, between a sound which forms thirty vibrations by second, and another which makes 7552 in the same time.

There



There is no extent in music between two terms, from which we may not insert an infinity of intermediate sounds, which divide it into an infinity of intervals; whence it follows, that the sonorous, or musical extent, is continually divisible ad infinitum, as those of time or place. (Vide interval.)

**EXTENT OF THE VOICE.** A grace in singing, which is marked by a small note, called, in Italian, *appoggiatura*, and is practised by ascending diatonically from one note to that which follows it, by an elevation in the throat.

**EXTENT OF THE VOICE THROWN OUT**, is formed when, ascending diatonically from a note to its third, we fix the third note on the sound of the second; to make the third note only be felt by a redoubled elevation of the throat.

**EXTENSION**, is, according to Aristoxenes, one of the four parts of the *melopæa*, which consists in sustaining a long time certain sounds, and even beyond their grammatical quantity. We at present call sounds, thus sustained, *tenue*, or *lene*.

## F.

**F** UT FA, F FA UT, or simply F. The fourth sound of the natural and diatonic gamut, which is otherwise called *fa*. (Vide gamut.)

This is also the name of the lowest of the three cleffs in music. (Vide cleff.)

**FALSE.** This word is in opposition to just. We sing false when the intervals are not toned in justness, and that the sounds are too high, or too low.

There are false voices, false chords, false instruments. In regard to voices, it is pretended, that the fault lies chiefly in the ear. I have, however, seen many people, who sing very false, and, at the same time, tuned an instrument with very great justness. The fault in their voice had not then any effect in regard to the ear. As for instruments, when their tones are false, it is because the instrument is ill constructed, that its strings are ill proportioned, or the chords false, or out of concord; that he who plays touches falsely, or that he modifies the wind or lips ill.

**FALSE CONCORD.** Discordant accord, either because it contains dissonances, properly so called, or because its consonances are not just.

**FALSE HUMMING.** A piece of music in several parts, but simple, and without measure, whose notes are almost all equal,  
D d and

and whose harmony is always syllabic. This is the psalmody of the Roman Catholics sung in many parts. The air of our psalms, in four parts, may also pass for a kind of false humming, but which proceeds with great gravity and flatness.

**FALSE FIFTH.** A dissonant interval, called by the Greeks *hemi diapente*, whose two terms are four diatonic degrees distant, as well as those of the true fifth, but whose interval is less by a semi tone; that of the fifth being of two major semi tones of a minor tone, and a semi tone major; and that of the false fifth only of a major tone, a minor, and of two semi tones major. If, on our ordinary keys, we divide the octave into two equal parts, we shall have on one side the false fifth, as *fi fa*, and on the other the triton, as *fa fi*; but these two intervals, equal in this sense, are not so, either in the number of the degrees, since the triton has only three; or in the precision of the connections, that of the false fifth being from forty-five to sixty-four, and that of the triton from thirty-two to forty-five.

The concord of false fifth is changed from the dominant accord, by placing the sensible note in the flat. (Vide at the word concord how this is accompanied.)

**FALSE RELATION.** A diminished or superfluous interval. (Vide relation.)

**FANTASY.** A piece of instrumental music, which is executed when composed. There is this difference betwixt the caprice and the fantasy; that the caprice is a collection of singular and droll ideas collected by a warm imagination, and which may even be composed at leisure; whereas the fantasy may be a very regular piece, which differs from the rest only that it is invented in its execution, and that it has no longer existence as soon as it finished. Wherefore, the caprice consists in the nature and assortment of ideas, and the ideas in their quickness in presenting them. It follows thence, that a caprice may be very well written, but never a fantasy; for as soon as it is written or repeated, it is no longer a fantasy, but an ordinary piece.

**FEIGNED TREBLE,** is that kind of voice, by which a man, leaving the sharp of the diapason of his natural voice, imitates that of a woman. A man, when he sings the feigned treble, does almost the same thing as a pipe of the organ when it plays in octave.

**FESTA.** A diversion of singing or dancing, which is introduced in the act of an opera, and which interrupts or always suspends the action.

These festa are only amusing, in comparison with the tiresomeness of the opera. In an interesting drama, when well conducted, it would be almost impossible to endure them.

The

The festa are applied more particularly to tragedies, and diversifements to ballets.

FI. A syllable by which many musicians mark the fa diesis, as they do the ma by mi B flat, which appears, I imagine, sufficiently clear.

FIFTH. The second of the consonances in the order of their generation. The fifth is a perfect consonance. (Vide consonance.) Its sound is connected as from two to three. It is composed of four diatonic degrees, coming to the fifth sound, from whence it has its name of fifth. Its interval is of three tones and a half, viz. two major tones, a minor tone, and a major semi tone.

The fifth may be changed in two ways, viz. by diminishing its interval a semi tone, and then it is called false fifth, and should be stiled diminished fifth; or by increasing the same interval a semi tone, and then it is called superfluous fifth; so that the superfluous fifth has four tones, and the false fifth three only, as the triton, from which, in our system, it only differs by the number of degrees. (Vide false fifth.)

There are two concords which bear the name of fifth, viz. the concord of fifth and sixth, which is also called greater sixth, or sixth added, and the concord of superfluous fifth. The first of these two concords is considered two ways, i. e. as a change from the concord of seventh, the third of the fundamental sound being conveyed to flat; this is the concord of greater sixth. (Vide sixth.) Or as a direct concord, whose fundamental sound is in flat, and it is then the concord of sixth added. (Vide double emploi.)

The second is also considered two ways, the one by the French, the other by the Italians. In the French harmony the superfluous fifth is the dominant concord in the minor mode, below which we make the mediant be heard, which forms a superfluous fifth with the sensible note. In the Italian harmony, the superfluous fifth is used only on the tonic in the major mode, when, by chance, the fa is diesis'd, forming then major third on the mediant, and consequently superfluous fifth on the tonic. The principle of this concord, which appears to go out of the mode, may be found in the exposition of Monsieur Tartini's system. (Vide system.)

It is forbid in composition to make two fifths together, by a similar movement between the two parts; this would disgust the ear, by forming a double modulation.

Monsieur Rameau pretends to give a reason for this rule, by a default of union between the concords. He is deceived. In the first place then, two fifths may be formed, and the harmonic union preserved. Secondly, with this union the two fifths are still ill. Thirdly, we must, on the same principle, extend, as in other

places, the rule to the major thirds, which is not, and ought not to be. It does not belong to our hypothesis' to act contrary to the judgment of the ear, but only to give reason for them.

Falsè Fifth, is a fifth counted just in harmony, but which by the force of modulation, is found to be weakened a semi-tone. Such is generally the fifth of the concord of seventh on the second note of the tone in the minor mode.

The Falsè Fifth is a dissonance which must be prevented, but the fifth false may pass as a consonance, and be treated as such, when we compose in four parts.

FIFTH, Is also the name given in France to that instrumental part of the whole, which in Italian is called Viola. The name of this part has passed also to the instrument which plays it, viz. Quinte.

FIFTEENTH. An interval of two octaves. (Vide DOUBLE OCTAVE.)

To FIGURE, Is to pass many notes for one; to form doubles, variations; to add notes to the music in any manner whatsoever; lastly, 'tis to give the harmonious sounds a figure of melody, in uniting them by other intermediate sounds. (Vide DOUBLE, FIGURED HARMONY, &c. &c.)

FIGURED. This adjective is applied either to the notes or harmony; to the notes as in this word, Figur'd-bass, to express a bass, whose notes bearing a concord, are divided into many other notes of less powers. (Vide Figured Bass). To the harmony, when by supposition, and in a diatonic direction, we make use of other notes than those which form the concord. (Vide FIGURED HARMONY and SUPPOSITION.)

FINAL. The principal chord of the mode which is also called Tonic, and on which the air or piece ought to finish. (Vide MODE.)

When we compose in many parts, and particularly in chorus, the bass must always fall by finishing exactly on the note of the Final: the other parts may stop on the third or fourth. Formerly it was a rule always given at the end of a piece, the major third must be in final, even in the minor mode. But this custom has been found deficient in taste, and entirely abolished.

FINIS. This word is sometimes placed on the final of the first part of a rondeau, to denote, that having retaken this first part, 'tis on this final we must stop and finish. (Vide RONDEAU.)

This word is no longer used in that sense, the French having substituted in its place, the Final Point, according to the example of the Italians. (Vide FINAL POINT.)

To FINGER, Is to direct the fingers in a convenient and regular manner on any instrument, and chiefly on the Organ or the Harpsichord, to play on it with the most ease and skill possible.

On

On instruments for the breast, such as the violin, and violoncello, the principal rule of fingering consists in the different positions of the left hand on the sleeve; it is by this means that the same passages may become easy or difficult, according to the positions and chords, on the which we may take these passages; it is, when a symphonist has attained to the art of passing nimbly with justness and precision through all these different positions, that we say he is expert in the sleeve. (Vide Position.)

On the organ and harpsichord, the fingering is entirely different. There are two methods of playing on these instruments, viz. the accompaniment and pieces. To play the pieces, we pay attention to the facility of the execution, and to a pleasing grace of the hand. As there are an excessive number of possible passages, the greater part of which require a particular way of directing the fingers; and since, besides each country and each master has his rule, there would be required on this part such details as this work would not permit, and in which custom and convenience take place of rules, when once the hand is properly fixed. The general precepts which may be given, are, first, to place both hands on the keys in such a manner, as to have nothing inconvenient in the attitude, which obliges us generally to exclude the thumb of the right hand; because the two thumbs placed on the keys, and principally on the white, would give the arms a situation constrained, and by no means graceful. We must also take notice, that the elbows should be a little raised above the edge of the keys, so that the hand may fall of itself as it were on them, which depends on the height of our seat. Secondly, we must hold the wrist nearly at the height of the keys, i. e. on a level with the elbow: the fingers must be removed from the breadth of the keys which are to be touched, so that they may be in readiness to fall on different ones in their turn. Thirdly, we must not successively convey the same finger on consecutive keys, but make use of all the fingers of each hand: Add to these observations the following rules, which I boldly offer, since I have them from Monsieur Dupli, an excellent master on the harpsichord, and who professes a perfect knowledge of fingering.

This perfection consists in general in a soft, easy, and regular movement. The movement of the fingers is taken from their root, that is, from the joint which fixes them to the hand.

The fingers must be naturally bent, and each finger must have its proper movement, independantly from the rest. The fingers must fall on the keys, and not strike them; and, moreover, must flow one from the other in a succession, that is, we must not leave one key before we have fixed on another. This chiefly regards the French methods of playing.

To continue a shake, we must use ourselves to pass the thumb below any finger whatsoever, and to pass any other finger below the thumb. This method is excellent, particularly when we meet with diesis', or B's flat : then be careful that the thumb be fixed on the key which precedes the diesis, or B flat, or place it immediately after : by this means you will gain as many fingers together as you will have notes to form.

Avoid, as much as possible, to touch a white key with the thumb, or fifth finger, particularly in very quick shakes.

The same shake is often executed with the two hands, the fingers of which, in that case, succeed each other successively. In these shakes the hands pass one on the other, but we must take notice, that the sound of the first key, on which one of these hands passes, must also be united to the precedent sound, as much as if they had been touched by the same hand.

In the harmonious and united kind of music, it is necessary to use ourselves to substitute one finger in the place of another, without raising the key. This method gives facility in the execution, and prolongs the duration of the sounds.

For the accompaniment, the fingering of the left hand is the same as for the pieces, because that hand must always play the bass which is to be accompanied ; wherefore the rules of Monsieur Duphli serve equally for that part, except on occasions when we wish to augment the noise by means of the octave, on which we fix the thumb and little finger ; for then, instead of fingering, the entire hand is conveyed from one part to another. In regard to the right hand, its fingering consists in the arrangement of the fingers, and in the direction given to them, to make the concords and their succession be heard ; so that whosoever hears well the mechanism of the fingers in this part, possesses the art of accompaniment. Monsieur Rameau has very well explained that mechanism in his Dissertation on the Accompaniment, and I think I cannot do better than give here an extract of that part of the dissertation which regards the fingering.

Every concord may be arranged by thirds. The perfect concord, i. e. the concord of a tonic, thus ranged on the keys, is formed from three touches, which ought to be struck with the second, third, and fifth finger. In this situation, it is the lowest finger, that is, the second which touches the tonic ; in the two other cases, there is always found a finger less below that same tonic. It must be placed in the fourth. In regard to the third finger, which is fixed above or below the two others, it must be placed in tierce in its turn.



A general rule for the succession of concords is, that there should be an union between them; that is to say, that some one of the sounds of the preceding concord should be prolonged on the following concord, and enter into its harmony. It is from this rule that the whole mechanism of the fingering is drawn. Since to pass regularly from one concord to another, some finger must remain in its place. It is evident, that there are only four methods of regular succession between two perfect concords, viz. the fundamental bass ascending or descending from third or fifth.

When the bass proceeds by thirds, two fingers remain in their place; in ascending, those which formed the third and fifth remain the octave and third; whereas, that which formed the octave, descends on the fifth. In descending, the fingers which formed the octave and third, remain to form the third and fifth; whilst that which formed the fifth ascends on the octave.

When the bass proceeds by fifth, one finger only remains in its place, and the two others take their course; in ascending, it is the fifth which remains to form the octave, whilst the octave and third descend on the third and fifth; in descending, the octave remains to form the fifth, whilst the third and fifth ascend on the octave, and on the third. In all these successions the two hands have always a contrary movement.

By exercising ourselves on different parts of the keys, we are soon familiarized to the play of the fingers on each of these courses, and the continuance of perfect concords can be no longer embarrassing.

In regard to the dissonances, we must first take notice, that every complete dissonant accord employs the four fingers, all of which may be arranged by thirds, or three by thirds, and the other joined to some one of the first, forming with it an interval of second. In the first case, it is the lowest of all the fingers, i. e. the index which expresses the fundamental sound of the concord; in the second case, it is the highest of the two joined fingers. By this observation, we easily know the finger which forms the dissonance, and which consequently ought to descend to prevent it.

According to the different consonant or dissonant accords, which follow a dissonant accord, we must make one or two fingers descend, or three at the end of a dissonant accord; and the perfect concord which prevents it, is easily found under the fingers. In a course of dissonant accords, when one finger alone descends, as in the interrupted cadence, it is always that which has formed the dissonance; that is to say, the lower of the two joined, or the higher of all, if they are arranged by thirds. Should we make two fingers descend, as in the perfect cadence, add to that which I have

mentioned, its neighbour below, and if there is none, the highest of all, those are the two fingers which ought to descend. Should three descend, as in the broken cadence, preserve the fundamental on its key, and make the three others descend.

The course of all these different successions, well studied, shews you the play of the fingers in all possible phrases; and as it is from perfect cadences that the most common succession of harmonic phrases is drawn, it is also in that that we must exercise ourselves most: we shall always find there the fingers directed, and ceasing alternately. If the two higher fingers descend on a concord where the two lower remain in their place, in the following concord the two higher remain, and the lower descend in their turn; or at least, they are the two farthest fingers which form the same play with the two middle.

We may also find an harmonic succession ascending by dissonances, by favour of the sixth added, but this succession, less common than that I have spoken of, is more difficult to manage, less prolonged, and the concords seldom are filled with all their sounds. The course of the fingers should have rules herein always, and, by supposing an union of imperfect cadences, we should always find either the four fingers by thirds, or the two fingers joined. In the first case, it would be to the two lower to ascend, and then to the two higher alternately; in the second, the higher of the two fingers joined, ought to ascend with that that is above it; and if there is none, with the lowest of all, &c. &c. &c.

It cannot be imagined, to what a length the study of fingering, taken in this method, may facilitate the practice of the accompaniment. After a little exercise, the fingers take insensibly the custom of directing themselves as it were voluntarily; they prepossess the mind, and accompany with a facility which has something astonishing. But we must confess, that the advantage of this method is not without its inconveniencies; for, without mentioning the octaves and fifths together, which are met with every moment, there results from all this concourse a rough and disagreeable harmony, with which the ear is strangely disgusted, particularly in concords by supposition.

Masters teach other methods of fingering, founded on the same principles, subject, it is true, to more exceptions, but by which, cutting off the sounds, we hurt the hand less; by a too great extension we avoid the octaves and fifths together, and we produce a harmony not so full, but more pure, and more agreeable.

**FIXED.** Stable chords or sounds are called fixed. (Vide Sound, Stable.)

**FLAT** is opposed to sharp. The slower the vibrations of a corpore sonoro are, the more flat the sound is. (Vide Sound, Gravity.)

**FLATTE.**

**FLATTE.** A grace in the French finging, difficult to be defined, but whose effect will be sufficiently understood by an example under the word Accent.

**FLEURTIS.** A kind of figured counterpoint, which is not syllabic, or note upon note. It is also the collection of different graces, with which a simple air is adorned. This word is now abolished in every sense. (Vide Double, Variations, &c.)

**FLOURISH.** A kind of military air, generally short and pleasing, which is performed with trumpets, and imitated on other instruments. The flourish is generally with two trebles of trumpets, accompanied by tymbals, and when well executed, has something martial and gay, which is very suitable to its use. Of all the European troops, the Germans have the best military instruments, and their marches and flourishes have an admirable effect. It is a remarkable thing, that throughout the whole kingdom of France, there is not one trumpet which sounds true; and the most warlike nation in Europe, has the most discordant military instruments, which is certainly attended with inconveniencies. During the last wars, the peasants of Bohemia, Austria, and Bavaria, all musicians born, not being able to think that regular troops had instruments so false, took those old soldiers for new recruits, whom they began to look on with contempt; and it cannot be imagined, how many brave men lost their lives on account of their discordant music. So true it is, that in the preparation of war, nothing should be neglected which may strike the senses.

**FLOURISHES.** This is said in music of several notes which the musician adds to his part in the execution; to vary an air often repeated, to adorn a too simple passage, or to give a brightness to the volubility of his throat or fingers. Nothing can better shew the good or ill taste of a musician, than the choice and use he makes of these ornaments. The vocal French music is very cautious in regard to flourishes; it even becomes more so every day; and if we except the celebrated Jeliote and Mademoiselle Fel, no French actor will now run the hazard of flourishing on the stage; for the French airs having of late years taken a more regular and lamentable tone, will no longer permit it. The Italians go the greatest lengths; amongst them there are contentions who shall extend it farthest: an emulation which always leads them to too great a height. However, the accent of their melody being very sensible, they need not fear that the true air should disappear under these ornaments which the author himself has often supposed.

In regard to instruments, we do as we please in a solo, but a flourishing symphonist could not be suffered in a good band.

FOOT.

**FOOT.** A measure of time, or quantity, distributed into two or more equal or unequal powers. There was in ancient music this difference between the times and feet, that the times were, as the points or elements, indivisible, and the feet the first composed of these elements. The feet, in their turn, were the elements of the metre or rhyme.

There were simple feet, which could only be divided into times, and others composed, which might be divided into other feet, as the Choriambic, which might be resolved into a trochee and a Iambic, the Ionic into a pyrrhic and a spondee.

There were rhimic feet, whose relative and determined quantities were proper to establish agreeable connections, as equal, doubles, sesquialters, sesqui-thirds, &c. and others not rhimic, between which the references were vague, uncertain, little sensible, such, for instance, as might be formed from French words, which, from short or long syllables, have an infinity of others, without a determined power; or which, long or short in grammar rules only, are not judged as such, either by the ear of the poet, or by the practice of the people.

**FORCE.** The quality of a sound, called also sometimes Intensity, which renders it more sensible, and heard at a greater distance. The more or less frequent vibrations of a sonorous body, are what render the sound sharp or flat; its greatest or least distance from the line of the stop, is what renders it strong or weak. When this distance is too great, and the instrument or voice is forced, (vide To force) the sound becomes a noise, and ceases to be agreeable.

**TO FORCE THE VOICE,** is to exceed its diapason, high or low, or its extent by force of the breath; or screaming instead of singing. Every forced voice loses its justness; this even happens to instruments where the fiddle-stick or the wind is forced, and it is for this reason that the French seldom sing true.

**FORLANE.** The air of a dance of the same name, common in Venice, particularly amongst the Gondoliers. Its measure is  $\frac{6}{8}$ ; it is beaten gaily, and the dance also is very lively. It is called Forlane, because it takes its origin in Frioul, whose inhabitants are called Forlans.

**FORTE.** This word is written in the parts to denote, that the sound must be forced with vehemence, but without raising it, sung in full voice, and much sound be drawn from the instrument; or sometimes it is used to destroy the effect of the word dolce, used precedently.

The Italians have still the superlative fortissimo, which is not at all wanted in the French music, for they generally sing fortissimo without any direction.

**FORTE**

**FORTE PIANO.** An Italian substantive composed, and which the musicians ought to frenchify, as the painters have *chiar-scuro*, by adopting the idea which it expresses. The forte piano is the art of sweetning and enforcing the sounds in imitative melody, as we do in the words which it ought to imitate. Not only when we speak with passion, we do not always express ourselves in the same tone, but we do not always speak even with the same degree of force. Music, by imitating the variety of the accents and tones, ought also to imitate the intense or remiss degrees of the words, and speak one while *dolce*, another while *forte*, sometimes a demi voice, and this is what the word forte piano generally expresses.

**FOURTH.** The third of the consonances in the order of their generation. The fourth is a perfect consonance ; its connection is from three to four : it is composed of three diatonic degrees formed by four sounds, from whence it receives its name of fourth. Its interval is of two tones and a half, viz. a major tone, a minor, and a major semi-tone.

The fourth may be changed two ways, i. e. by diminishing its interval a semi-tone, and then it is called diminished fourth, or false fourth ; or by augmenting the same interval a semi-tone, and it is then called superfluous fourth, or triton, because its interval has three full tones : it has only two tones, that is, one tone, and two semi tones in the diminished fourth ; but this last interval is banished from the harmony, and only practised in an air.

There is a concord which has the name of fourth, or fourth and fifth. Some call it concord of eleventh. It is that, where, under a concord of seventh, we suppose a fifth sound in the bass, a fifth below the fundamental ; for in that case, this fundamental forms a fifth, and its seventh has an eleventh with the supposed sound. (Vide Supposition.)

Another concord is called superfluous fourth, or triton. It is a sensible concord, whose dissonance is conveyed to the bass ; for in that case the sensible note forms a triton on that dissonance. (Vide Concord.)

Two true fourths together are permitted in composition, even by a similar movement, provided the sixth be added ; but those are passages which must not be used wrong, and which the fundamental bass does not absolutely authorize.

**FOURTEENTH.** A repique, or octave of the seventh. This interval is called fourteenth, because fourteen sounds must be found to pass diatonically from one of its terms to another.

**FRAGMENTS.** By this name is called in the opera of Paris, the choice of three or four acts of ballet, which are taken from different operas, and collected together, though they have no connection

nection betwixt themselves, to be represented successively the same day, and with their interludes, equal the duration of an ordinary spectacle. There is no man born with taste who can form any idea of such a mixture, and no theatrical and interesting piece which can permit it.

**FREDON.** An ancient word, which signifies a quick passage, and generally diatonic of many notes on the same syllable. This is nearly what has been since called trill, with this difference, that the trill has a longer duration, and is written, whereas the Fredon is only a short addition in taste, or, as it was formerly called, a diminution, which the finger makes on each note.

**FUGUE.** A piece of music, wherein we treat, according to certain rules of harmony and modulation, an air called subject, by making it pass successively and alternately from one part to another.

There are the principal rules of the fugue, the one of which are proper to it, and the other common with the imitation.

I. The subject proceeds from the tonic to the dominant, or from the dominant to the tonic, in ascending or falling.

II. Every fugue has its answer in the part, which immediately follows that which has begun.

III. This answer ought to return the subject to the fourth or fifth, and by a similar movement, as exactly as possible proceeding from the dominant to the tonic, when the subject is announced from the tonic to the dominant, and vice versa. One part may also retake the same subject in the octave, or in the unison of the precedent; but in that case it is a repetition rather than a true answer.

IV. As the octave is divided into two unequal parts, the one of which comprehends four degrees in ascending from the tonic to the dominant, and the other only three. This obliges us to have attention to that difference in the expression of the subject, and to make some change in the answer, not to quit the essential chords of the mode. It is another thing when we propose to change the tone; in that case, the exactness of the answer itself, taken on another chord, produces alterations suitable to this change.

V. The fugue must be designed in such a manner, as, that the answer may enter before the end of the first air, that we may hear each of them in part at a time, that by this anticipation the subject may be united, as it were, to itself; and that the art of the composer may be shewn in this collection. It is a joke to give as a fugue, an air, which only passes from one part to another, without any other difficulty than accompanying it immediately. This, at most, deserves only the name of imitation. (Vide Imitation.)

Besides



Besides these rules, which are fundamental, to succeed in this kind of composition, there are others, which, tho' only for taste, are not less essential. The fugues, in general, render the music more noisy than agreeable; for which reason, they are more suitable in chorusses than any where else. Moreover, as their chief merit is to fix the ear always on the principal air or subject, since, on that account, we make them pass incessantly from part to part, and from modulation to modulation, the composer should be particularly careful to render this air always very distinct, or to hinder its being stifled or confounded amongst the other parts. There are two methods for this; one in the movement, which must be continually contrasted, so that, if the course of the fugue is precipitate, the other parts precede also by long notes; and, in the contrary, if the fugue is directed flatly, the accompaniments labour more: the other method is to separate the harmony, lest the other parts, approaching too near to that which sings the subject, should be confounded with it, and prevent its being heard clearly, so that what would be reckoned a fault every where else, becomes a beauty here.

*An Unity of Melody.* Here is the grand rule to be practised often by different methods. We must chuse the concords, the intervals, so that a certain sound, and not an indifferent one, may cause the principal effect, viz. an unity of melody. We must sometimes put into play, instruments or voices of a different kind, so that the part which should predominate may be more easily distinguished, viz. an unity of melody. Another observation, not less necessary, is, in the different unions of modulations, which the force and progress of the fugue bring with them, to take care that all these modulations be correspondent, at the same time, in all their parts; to unite the whole in its progress by an exact conformity of tone, for fear that one part being in one tone, and another in another, the entire harmony should be in neither; and should not present any simple effect to the ear, or simple idea to the mind, viz. an unity of melody. In a word, in every fugue, the confusion of melody and modulation is what, at the same time, is most to be feared, and the most difficult to be avoided; and the pleasure which this kind of music produces, being always middling, we may say, that a good fugue is the unrepaid chef-d'œuvre of a good harmonist.

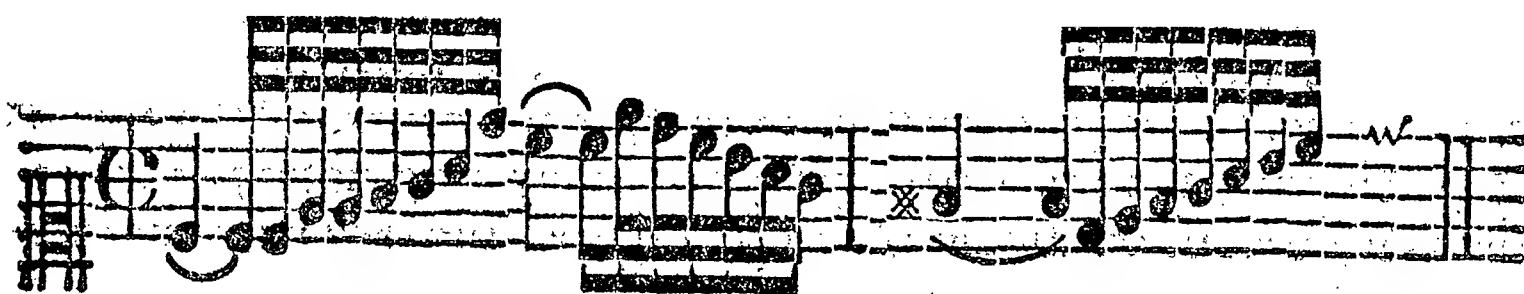
There are also several other kinds of fugues, as the perpetual fugues, called canons; the double fugues, the counter fugues, each of which may be seen under its title, and, which serve more to extend the art of composers, than to please the ear of an audience.

Fugue is from the Latin fuga, flight; because the parts setting off so successively, seem to fly and pursue each other.

**CONFUSED FUGUE**, Is that whose answer is made by a movement contrary to that of the subject.

**FULL PLAY**, Is said of the play of an organ, when all the registers are fixed, and the whole harmony is filled ; it is said also of bow instruments, when we draw from them all the sound which they can give.

**FURCE**, A quick and continued stroke, which ascends or falls to join two notes diatonically to a great interval, one from the other, thus :



Unless the furce be noted, it is necessary, for its execution, that one of the two extreme notes have a duration, on which the furce may be passed without changing the measure.

## G.

**G RE SOL**, **G SOL RE UT**, or simply **G**, The fifth sound of the diatonic gamut, which otherwise is called sol. (Vide Gamut.)

It is also the name of the highest of the three musical cleffs. (Vide Cleff.)

**GAI**, This word written above an air, or a piece of music, denotes a middle movement between the quick and moderate : it answers to the Italian word, *Allegro*, used in the same sense. (Vide *Allegro*.)

This word may also be understood of a character of music, independantly of the music.

**GAILLARD**, A three-tim'd air, belonging to a lively dance of the same air. It was formerly called *Romanesque*, because, according to report, it is derived from Rome, or, at least, from Italy.

This dance has been out of use some time. There is only a step of it that remains, called, "The Gaillard step."

**GAMUT**, A table or scale, invented by Gui Aretin, on the which we learn to name and sound justly the degrees of the octave by the six notes of music, ut, re, mi, fa, sol, la, according to all the dispositions that can be given them, which is called in French *solier*, to sol fa. The

The gamut has also been stiled an harmonic hand, because Gui made use of the figure of a hand, on the fingers of which he ranged his notes, to shew the connections of his hexachords with the five tetrachords of the Greeks.

This hand has been in use to teach to name the notes, till the invention of *si*, which abolishes the divisions amongst us, and, consequently, the harmonic hand which serves to explain them.

Gui Aretin having, according to the general opinion, added to the diagram of the Greeks a tetrachord in sharp, and a chord in flat, or rather, according to Meibornius, having, by these additions, established this diagram in its ancient extent, he called that flat chord *hypoposflambanomenos*, and marked it by the *T* of the Greeks; and as this letter was found thus at the head of the scale, by placing the flat sounds above, according to the method of the ancients, it caused the name of gamut to be given to this scale.




This gamut then, in the whole of its extent, was composed of twenty chords or notes, viz. of two octaves and a major sixth. These chords were represented by letters and syllables. The letters invariably distinguished each a determined chord of the scale, as they do at present; but as there were then but six letters, that there might be seven, and as it was necessary to re-begin from octave to octave, they distinguished these octaves by the figures of letters. The first octave was marked with capital letters, in this manner, *T. A. B. &c.* The second, in running-hand, *g. a. b.* And for the supernumerary sixth, they used double letters, *gg. aa. bb. &c.*

In regard to the syllables, they only represented the names which were to be given to the notes in singing. Moreover, as there were only six names for seven notes, it was through necessity that one name was given to two different notes; which was managed in such a manner, as that these two notes, *mi*, *fa*, or *la*, *fa*, should fall on semi-tones. Consequently, as soon as a diesis or a *B* flat presented itself, which brought a new semi-tone, the names were to be again changed, which caused the same name to be given to different notes, and different names to the same note, according to the progress of the air: and these changes of the name were called divisions.

These divisions were then learned by the gamut. At the left of each degree, we saw a letter, which denoted precisely the chord belonging to that degree. On the right, in the cases, we found the different names which that note might bear, in rising or descending by *B* sharp, or *B* flat, according to the progress.

The difficulties of this method have caused different changes to be made in the gamut at several times. This plate represents the gamut as it is now used in Italy.

*The Italian Gamut.*

		<i>B sharp</i>	<i>natural</i>	<i>B flat</i>
	<i>cc</i>	<i>la</i>	<i>mi</i>	
	<i>dd</i>	<i>sol</i>	<i>re</i>	<i>la</i>
	<i>cc</i>	<i>fa</i>	<i>ut</i>	<i>sol</i>
	<i>bb</i>	<i>mi</i>		
	<i>bb</i>			<i>fa</i>
	<i>aa</i>	<i>re</i>	<i>la</i>	<i>mi</i>
	<i>g</i>	<i>ut</i>	<i>sol</i>	<i>re</i>
	<i>f</i>		<i>fa</i>	<i>ut</i>
	<i>e</i>	<i>la</i>	<i>mi</i>	
	<i>d</i>	<i>sol</i>	<i>re</i>	<i>la</i>
	<i>c</i>	<i>fa</i>	<i>ut</i>	<i>sol</i>
	<i>b</i>	<i>mi</i>		<i>fa</i>
	<i>a</i>	<i>re</i>	<i>la</i>	<i>mi</i>
	<i>G</i>	<i>ut</i>	<i>sol</i>	<i>re</i>
	<i>F</i>		<i>fa</i>	<i>ut</i>
	<i>E</i>	<i>la</i>	<i>mi</i>	
	<i>D</i>	<i>sol</i>	<i>re</i>	
	<i>C</i>	<i>fa</i>	<i>ut</i>	
	<i>B</i>	<i>mi</i>		
	<i>A</i>	<i>re</i>		
	<i>F</i>	<i>ut</i>		

It is nearly the same thing in Spain and Portugal, unless that the column of B sharp is sometimes found in the last place, which here is the first, or some other difference of as little signification.

To make use of this scale, if we will sing in natural, we apply ut to T. of the first column, the length of which we ascend as far as la, after which, passing to the right in the column of B natural, we name fa; we ascend to la of the same column, and then return in the precedent to mi, and so in continuance. Or indeed, we may begin by ut at the C of the second column, and when arrived at la, pass to mi in the first column, and then repass in the other column to fa. By this method, one of these transitions always forms a semi-tone, viz. la, fa; and the other, always a tone, viz. la mi. By B flat, we may begin at the ut in c or f, and form the transitions in the same manner, &c.

In descending by B sharp, we quit the ut of the column in the middle, to pass to mi from that of the B sharp, or to fa from that of B flat; then, descending as far as ut of that new column, we go out by fa from the left to the right, by mi from right to left, &c.

The

The English do not make use of all the syllables, but only the four first, ut, re, mi, fa, changing thus the column every four notes, or every three, by a method similar to that which I have just explained, unless in the place of la, fa, and la, mi, we must move in fa, ut, and mi, ut.

The Germans have no other gamut than the initial letters, which express the fixed sounds in the other gamuts, and they even sol fa with those letters.

The French gamut, otherwise called gamut of fi, prevents the embarrassment of all these transitions. It consists in a simple scale of six degrees on two columns, besides that of the letters.

### *The French Gamut.*

<i>E</i>	<i>fi</i>	<i>mi</i>
<i>D</i>	<i>la</i>	<i>re</i>
<i>C</i>	<i>sol</i>	<i>ut</i>
<i>B</i>	<i>fa</i>	<i>fi</i>
<i>A</i>	<i>mi</i>	<i>la</i>
<i>G</i>	<i>re</i>	<i>sol</i>
<i>F</i>	<i>ut</i>	<i>fa</i>

The first column on the left is to be sung by B flat, that is, with a B flat in the cleff. The second is sung in natural. Here lies all the mystery of the French gamut, whose difficulty is as trifling as its use, since every other alteration but a B flat puts it instantly out of use. The other gamuts have only this advantage over it, than having a column for the B sharp also, that is, for a diesis in the cleff; but as soon as we put more than a diesis or a B flat (which formerly was never done) all these gamuts are equally useless.

At present, when the French musicians sing every thing in natural, they have no occasion for a gamut. C sol ut, ut, and C, are, to them, no more than the same thing. But in Gui's system, ut is one thing, and C another, very different; and when he gave each note a syllable and a letter, he did not pretend to make synonymies of them, which would be doubling the names and embarrassments to no purpose.

**GAVOT**, A kind of dance, whose air is two tim'd, and is cut into two repeats, each of which begins with the second time, and finishes on the first. The movement of the gavot is generally pleasing, often lively, sometimes also tender and slow. It marks its phrases and its stops every two measures.

**GENIUS**. Seek not, young artist, what meaning is expressed by genius. If you are inspired with it, you must feel it in yourself. Are you destitute of it, you will never be acquainted with it. The genius of a musician submits the whole universe to his art. He paints every piece by sounds; he gives a language even to silence itself; he renders ideas by sentiments; sentiments by accents; and the passions which he expresses are drawn from the bottom of the heart. Voluptuousness, by his assistance, receives fresh charms; the grief to which he gives utterance, excites cries; he continually is burning, and never consumes. He expresses with fire even the coldest subjects; even in painting the horrors of death, he conveys to the soul that sentiment of life which never abandons it, and which he communicates to hearts formed to feel it. But alas! his words avail nothing to those wherein his seeds are not implanted; and his prodigies are hardly sensible to those who are incapable of imitating them. Would you then wish to know if any spark of this devouring flame inspires you? Be quick, haste to Naples, listen to the master-pieces of Leo, Durante, Jommelli, Pergolesi. If your eyes are filled with tears, if you feel your heart palpitate, if gaiety agitates you, if sorrow involves you in transports, take Metastasio and labour: His genius will enflame yours; you will form a creation after his example: 'Tis this which forms the genius, and the eyes of others will very soon restore you those tears which your masters have caused you to shed. But if the charms of this grand art leave you contented, if you feel no ravishing transports, if you discover nothing beautiful, but what barely pleases, dare you demand what genius is? Vulgar mortal, dare not profane that heavenly appellation. What would it avail to thee to know it? Thou canst not feel it. Compose in French, and peaceably retire.

**GENUS**. The division and disposition of the tetrachord considered in the intervals of the four sounds which compose it. We imagine that this definition, which is that of Euclid, is only applicable to the Greek music, which I have spoken of in the first place.

The good regulations of a concord of the tetrachord, viz. the establishment of a regular genus, depended on the three following rules, which I draw from Aristoxenes.

The first was, that the two extreme chords of the tetrachord should always remain unmoveable, that their interval might always



ways be that of a true fourth, or a diatessaron. In regard to the middle chords, I confess, they vary, but the interval of Lichanos in Mesis ought never to pass two tones, nor diminish below a tone; so that they had precisely the space of a tone to vary the concord of the Lichanos, and this is the second rule. The third was, that the interval from the parhypaton, or second chord, should not exceed that of the same parhypaton to the Lichanos.

As in general this concord might be diversified three ways, this constituted three principal genera, viz. the diatonic, chromatic, and enharmonic.

These two last genera, or the two first intervals, formed always together a sum less than the third interval, and were called, on that account, confined genera.

In the diatonic, the modulation proceeded by a semi-tone, a tone, and another tone, *fi, ut, re mi*; and as we passed through three consecutive tones, from whence it received the name of diatonic, the chromatic proceeded successively by two semitones and a hemi-diton, or a minor third, *fi, ut, ut diesis mi*. This modulation was placed in the middle between the diatonic and enharmonic, making, if I may be allowed the expression, different divisions be felt, just as when between two principal colours were introduced several intermediate properties, and from thence this was called the enharmonic or colour'd genus. In the enharmonic, the modulation proceeded by two fourths of a tone, by dividing, according to Aristoxenes, the major semitone into two equal parts, or a diton, or major sixth, as *fi, fi diesis enharmonic, ut, and mi*, or, according to the Pythagoreans, in dividing the major semitone into two unequal intervals, which formed one the minor semitone, viz. our ordinary diesis, and the other the complement of this same semitone minor to the semitone major; and then the diton, as before, *fi, fi ordinary diesis, ut, mi*. In the first case, the two equal intervals of *fi* to *ut* were both enharmonic, or the fourth of a tone; in the second case, there was no enharmonic but the passage of *fi diesis* to *ut*, viz. the difference between the minor and major semitone, which is the diesis called so by Pythagoras, and the true enharmonic interval given by nature.

Therefore, as this modulation, says Mons. Burette, was very much confined, running only through small intervals almost imperceptible, it was called enharmonic, as one would say, well joined, well collected, *prope coagmentata*.

Besides these principal genera, there were others which resulted all from the different parts of the tetrachord, or from methods of turning it differently from those which I have mentioned. Aristoxenes subdivides the diatonic genus into syntonic and diatonic mollare, (vide Diatonic) and the chromatic genus into mollare, mollare hemiolian, and tonic, (vide Chromatic) whose differences

he gives as I have shewn under their articles. Aristides Quintilian mentions many other peculiar genera, and he reckons up six as very ancient, viz. the Lydian, Dorian, Phrygian, Ionian, Mixolydian, and Syntonolydian. These six genera, which must not be confounded with the tones or modes of the same names, differ in their degrees, as well as in their concord; the one did not reach the octave, the others reach'd, and others pass'd it, in such a manner as to partake, at the same time, of the genus and the mode. The detail of it may be seen in a book, intitled, the Greek Musician.

In general, the diatonic is divided in as many kinds as can be assigned to different intervals between the semitone and tone.

The chromatic has as many kinds as may be assigned to the intervals between the semitone and the enharmonic diesis.

In regard to the enharmonic, it is not subdivided.

Independantly of all these subdivisions, there was also a common genus, in which were used only the stable sounds which belong to all the genera, and a mixt genus, which partook of the character of two or of all the three genera. Moreover, we must take notice, that in this collection of genera, which was very rare, there were not more than four chords made use of, but they were extended or relaxed differently during the same piece, which appears rather difficult to practice. I imagine, that perhaps one tetrachord was tun'd in one genus, and another in another, but authors have not made a clear explanation therein.

We read in Aristoxenes, Book I. Part II. that until the time of Alexander, the diatonic and chromatic were neglected by ancient musicians; and that they practised only the enharmonic genus, as the only one worthy of their abilities: but this genus was entirely abandoned in the time of Plutarch, and the chromatic was also forgotten before Macrobius.

The study of the ancient writings, rather than the progress of our music, has rendered us these ideas, lost amongst their successors. We have, as well as themselves, the diatonic genus, chromatic and enharmonic, but without any divisions; and we consider these genera under ideas very different from those which they had. They had as many peculiar manners of conducting the air on certain prescribed chords. For us, these are so many manners of conducting the entire body of harmony, which force the parts to follow the intervals prescribed by these genera; so that the genus belongs still more to the harmony which engenders it, than to the melody which causes its sensations.

We must observe again, that in our music, the genera are almost always mixt, that is, the diatonic enters very much into the chromatic, and each of them is necessarily intermingled with the enharmonic. One entire piece of music, in one only genus, would  
be

be very difficult to be conducted, neither would it be supportable; for in the diatonic it would be impossible to change the tone; in the chromatic, we should be forced to change the tone in each note; and in the enharmonic, there would be absolutely no kind of union.

All this is again derived from the rules of harmony, which subject the succession of concords to certain rules, incompatible with a continual succession, enharmonic or chromatic, and also from that of the melody, which cannot extract any kind of pleasing air. It was different with the genera of the ancients, as the tetrachords were equally complete, tho' differently divided in each of the three systems; if, in ordinary melody, one genus had borrowed from another, other sounds than those which were necessarily common between them, the tetrachord would have had more than four chords, and all the rules of their music would have been confounded.

Monf. Serre, of Geneva, has made the distinction of a fourth genus, which I have spoken of in its article. (Vide Diacommatic.)

GIG, The air of a dance which bears the same name, whose measure is a 6=8th, and whose movement lively. The French operas contain many gigs, and the gigs of Correlli have been a long time celebrated; but these airs are entirely out of fashion, and there are no more used in Italy, and very few in France.

GRACES IN SINGING, By this term are called, in the French music, certain turns and shakes in the throat, and other ornaments joined to the notes, which are in such or such a position, according to the rules prescribed by a taste in singing. (Vide Taste in Singing.)

The principal of these graces are "The accent, the flow, the flatte, the martellement, full cadence, broken cadence, and extent of the voice." (Vide those articles.)

GRAVE, An adverb which expresses slowness in a movement, and also, a certain gravity in the execution.

GRAVITY, Is that modification of the sound by which it is considered as grave or bass, in connection with the other sounds, which are called high or sharp. There is no correlative to this word in French, for that of acuity could not express it.

The gravity of the sounds depends on the bigness, length, and extension of the chords, on the length and diameter of the pipes, and, in general, on the extent and mass of sonorous bodies. The more they have of that, the greater is their gravity, but there is no absolute gravity, and no sound is flat or sharp but by comparison.

GROS-FA, Certain ancient pieces of church-music, in square notes, Semibreves, and minims, were formerly called the gros-fa.

GROUP,

**GROUP**, According to the Abbe Bropart, four equal and diatonic notes, the first and third of which are on the same degree, form a group. When the second descends and the fourth rises, it is an ascendant group; when the second ascends and the fourth falls, it is descendant: and he adds, that this name has been given to these notes on account of the figure which they form together.

I do not remember to have ever heard this word used in speaking, in the sense which the Abbe Bropart gives it, nor to have read it in a similar sense any where but in his dictionary.

**GUIDE**, Is that part which enters first in a fugue, and announces the subject. (Vide Fugue.) This word is very common in Italy, but seldom used in France in the same sense.

**GUIDON**, A small sign of music which is placed at the extremity of each stave, on the degree where the note must be placed which begins the following stave. If this first note is accidentally accompanied by a diesis, or B sharp, the guidon should be accompanied also.

In Italy the guidon is no longer used, particularly in partitions, where, each part having its place fixed in the column, we cannot mistake in passing from one to the other. But the guidons are necessary in the French partitions, because, from one line to another, the columns, containing more or less staves, leave you in a continual uncertainty of the staves, correspondent to that which you have left.

**GYMNOPOEDIA**, An air in strain, to which the young Lacedæmonians danced uncovered.

## H.

**HARMATIAS**, The name of a dactylic air, in the Greek music, invented by the first Phrygian Olympus.

**HARMONY**, The sense which the Greeks gave to this word in their music, is so much the more difficult to determine, as being originally a proper name it has no root, by which it can be uncomposed to extract its etymology. In the ancient treatises that we have remaining, harmony appears to be the part which has for its object the suitable succession of sounds, insomuch as they are sharp or flat, in opposition to the two other parts, which are called *rythmica* and *metrica*; which have connection with the time and measure, which leaves to this convenience a vague and undetermined idea, which cannot be fixed but by an express study of all the rules of the art; and still, after this, the harmony will be very difficult

difficult to be distinguished from the melody, unless they add to the last, the ideas of rhyme and measure, without which, in effect, no melody can have a determined character ; whereas the harmony is its own by itself, independant of every other quantity. (*Vide Melody.*) We see by a passage of Nicomachus, and others, that sometimes the name of harmony was given to the consonance of the octave, and to concerts of the voice, and instruments which were executed by the octave, and which were more commonly called antiphonies.

Harmony, according to the moderns, is a succession of concords according to the laws of modulation. This harmony had, for a long time, no other principles than rules almost arbitrary, or only founded on the approbation of an exercised ear, which judged of the good or ill succession of consonances, and whose decisions were immediately placed in calculation. But, P. Merfenne, and Mons. Sauveur, having found that every sound, tho' simple in appearance, was always accompanied by other sounds less sensible, which formed with it a major perfect concord ; Mons. Rameau has left this experience, and has made from it the basis of his harmonic system, with which he has filled many books, and which Mons. D'Alembert has lately taken the trouble of explaining to the public.

Mons. Tartini, leaving another experience more new, more delicate, and not less certain, has attained at conclusions pretty similar, by a quite opposite method. Mons. Rameau engenders the treble by the bass ; Mons. Tartini engenders the bass by the treble : The one draws the harmony from the melody, and the former acts quite contrary. To decide from which of the two schools the best works take their origin, we need only know which should be made for the other, the air or the accompaniment. A short exposition of M. Tartini's may be found at the word *System*. I here continue to speak in that of Mons. Rameau, which I have followed thro' the whole of this work, as the only one admitted in the country where I write.

I ought however to declare, that this system, as ingenious as it may appear, is nothing less than founded on nature, as he incessantly repeats it ; that it is established only on analogies and conveniencies, which one, who is tolerable at invention, might overthrow to-morrow, by others much more natural ; that lastly, of the experience which he deduces, one is known to be false, and the other does not furnish the consequences which he would draw from it. In effect, when this author wished to decorate, with the title of demonstration, the reasonings on which he establishes his theory, the whole world laugh'd at him. The academy refused, and highly disapproved, this ridiculous qualification ; and Mons. Esteve, of the *Société Royale*, of Montpelier, clearly shewed him, that to  
begin

begin by that proposition, viz. that, by the law of nature, the octaves of sounds represent them, and may be taken for them, was no kind of demonstration, nor even solidly established in his pretended demonstration. I now return to his system.

The physical principle of the resonance presents to us the solitary concords and establishes not the succession. A regular succession is however necessary. A dictionary of chosen words is not an harangue, nor a collection of good concords a piece of music. A sense is wanting; an union in the music as well as language is necessary: Something of what precedes must be transmitted to what follows, that the whole may form a concinnity, and may be truly *one*.

Moreover, the composed sensation, which results from a perfect concord, is resolved in the absolute sensation of each of the sounds which compose it; and in the compared sensation of each of these intervals which these same sounds form between themselves, there is nothing beyond the sensible in this concord; from whence it follows, that it is only by the connection of the sounds, and the analogy of the intervals, that the union in question can be established: There lies the true and only principle, whence flow all the laws of harmony and modulation. If then, the whole of harmony was formed only by a succession of perfect major concords, it would be sufficient to proceed to them by intervals similar to those which compose such a concord; for then, some sound of the preceding concord being necessarily prolonged on the following, all the concords would be found sufficiently united, and the harmony would be in *one*, at least, in this sense.

But besides that such successions would exclude the whole melody, by excluding the diatonic genus, which forms its basis, they would not reach the true aim of the art, since music, being a discourse, ought, like it, to have its periods, its phrases, suspensions, stops, and punctuation of every kind; and as the uniformity of the harmonic courses presents nothing of these properties, the diatonic course required the major and minor concords to be intermixt, and we have felt the necessity of dissonances to mark the stops and phrases. Moreover, the united succession of perfect major concords, neither gives the perfect minor concord, the dissonance, or any kind of phrase, and its punctuation appears entirely erroneous.

Mons. Rameau, insisting absolutely, in his system, that all our harmony should be drawn from nature, has had recourse, for this purpose, to another experience of his own invention, which I have spoken of before, and which is changed from the first. He has pretended, that any sound furnished in its multiples a perfect minor concord in flat, whose dominant or fifth it was, as it furnished a major in its aliquots, of which it is the tonic or fundamental.



fundamental. He has advanced, as a certain thing, that a sonorous made two other flatter chords vibrate in their totality, without, however, making them resound, the one in its major twelfth, and the other in its seventeenth; and from this proposition, joined to the precedent, he has deduced, very ingeniously, not only the introduction of the minor mode, and dissonance in harmony, but the rules of the harmonic phrase, and the whole of modulation, such as we find at the words Concord, Accompaniment, Fundamental Bass, Cadence, Dissonance, Modulation.

But first, the experience is false. It is known, that tuned chords, below the fundamental sound, do not entirely shake with this fundamental sound, but that they are divided to render the unison only, which consequently has no harmonies below. It is also known, that the propriety which the chords have of being divided, is not particular to those which are tuned in the twelfth and seventeenth below the principal sound, but that it is common to all its multiples, from whence it follows, that the intervals of twelfth and seventeenth, not being peculiar in their manner, nothing can be concluded from them in favour of the minor perfect concord which they represent.

Though we should suppose the truth of this experience, this would be very far from removing the difficulties. If, as *Monf. Rameau* pretends, the whole of harmony is derived from the resonance of a sonorous body, it does not then derive from it the single vibrations of a sonorous body which does not resound. In effect, it is a strange theory to derive from what does not resound, the principles of harmony; and it is strange in physics, to make a sonorous body vibrate and not resound, as if the sound itself was at all different from the air, shaken by these vibrations. Besides, the sonorous body does not only give, besides the principal sound, those sounds which with it compose the perfect concord, but an infinity of other sounds, formed by all the aliquots of the sonorous body. Why are the first sounds consonant, and the other not, since they are all equally given by nature?

Every sound forms a concord truly perfect, since it is formed of all its harmonies, and by them it is that it becomes a sound. These harmonies, however, are not heard, and we distinguish no more than a simple sound, unless it be extremely strong; from whence it follows, that the only good harmony is the unison, and that as we distinguish the consonances, the natural proportion being changed, the harmony has lost its purity.

This alteration is formed two ways: first, by giving a sound to certain harmonies, and not to others, we change the connection of force, which ought to reign amongst them all, to produce the sensation of a sound, and the unity of nature is destroyed. We produce, by doubling these harmonies, an effect similar to

H h

that

that which would be produced by stifling all the rest : for then we must not doubt, but that, with the generating sound, we might hear those of the harmonies which we should have left ; whereas, by leaving them all, they destroy each other, and concur together to produce and enforce the single sensation of the principal sound. This is the same effect which the full play of the organ produces ; when removing the registers successively, we leave with the principal the doublet and the fifth ; for then that fifth and that third, which remained confounded, were separately and disagreeably distinguished.

Moreover, the harmonies which were made to sound, have themselves other harmonies, which are not from the fundamental sound : It is by these harmonies added, that that which produces them is still more roughly distinguished ; and these same harmonies, which make the concord to be thus felt, enter not into their harmony. This is the reason why the consonances which are most perfect naturally displease the ear, little qualified to understand them, and I do not doubt but the octave itself would, as well as the rest, displease, if the mixture of the voices of men and women had not given the custom of it from its infant state.

In the dissonance it is still worse, since not only the harmonies of the sound which give it, but that sound itself does not enter into the harmonious system of the fundamental sound ; which causes that the dissonance is always distinguished in a disagreeable manner amongst the other sounds.

Every touch of an organ in full play gives a perfect concord major third, which is not distinguished from the fundamental sound, unless we pay an extreme attention, and draw the tones successively ; but these harmonic sounds are not confounded with the principal, but by favour of a loud harmony, and an arrangement of registers, by which the pipes which make the fundamental sound resound, cover with their force those which give their harmonies. Moreover, we do not observe, neither can we, that continual proportion in a concert, since, in conjunction with the change of the harmony, this greatest force must instantly pass from one part to another, which is not practicable, and would entirely disfigure the melody.

When we play on the organ, each touch of the bass makes the perfect major concord sound ; but because this bass is not always fundamental, and as we often modulate in perfect minor concord, this major perfect concord is seldom that which the right hand strikes ; so that we hear the minor third with the major, the fifth with the triton, the superfluous seventh with the octave, and a thousand other cacophonies, with which our ear is little disgusted, because custom renders them convenient ; but it could not be presumed, that it is the same thing with an ear naturally  
just,

just, and which, for the first time, we should put to the proof of this harmony.

Monf. Rameau pretends, that trebles of a certain simplicity naturally suggest their bass, and that a man, who has an ear true, and not exercised, will naturally suggest it. This is a prepossession of a musician, proved erroneous by the whole of experience. Not only he, who shall never have heard bass or harmony, will not find this harmony or bass of himself, but they will displease him as soon as he hears them, and he will prefer greatly the simple unison.

When we reflect, that of all the people of the earth, who all have a music and an air, the Europeans are the only ones who have a harmony and concords, and who find this mixture agreeable; when we reflect, that the world has continued so many years, without, amongst the cultivation of the beaux arts throughout mankind in general, any one's having known this harmony; that no animal, no bird, no being in nature, produces any other concord than the unison, no other music than melody; that the eastern languages, so sonorous, so musical; that the Greek air, so delicate, so sensible, exercised with so much art, have never guided these voluptuous people, fond of our harmony, that without it, their music had such prodigious effects, that with it, ours is so weak; that lastly, it was reserved for the northern nations, whose rough and brutal organs are more touched with the éclat and noise of the voice, than with the sweetness of the accent, and the melody of the inflections, to make this vast discovery, and to give it as a foundation of all the rules in art: When, I say, we pay attention to the whole of this, it is very difficult not to suspect that all our harmony is but a gothic and barbarous invention, which we should never have followed if we had been more sensible of the true beauties of art, and of music truly natural.

Monf. Rameau, however, pretends that harmony is the source of the greatest beauties in music; but this opinion has been contradicted by facts and reason.—By facts, because all the great effects of music have ceased, and it has lost all its energy and force since the invention of the counter point; to which I add, that beauties purely harmonic, are ingenious beauties, which please only persons versed in the art; whereas the true beauties of music, being those of nature, are, and ought to be, equally sensible to every man, whether learned or ignorant.

By reason, because harmony furnishes no imitation by which the music, forming images, or expressing sentiments, may be raised to the dramatic or imitative genus, which is the most noble part of art, and the only one energetic. Every thing that expresses only the physic of sounds, being greatly bounded in the pleasure

which it gives us, and having very little power over the human heart. (Vide Melody.)

**HARMONY**, A genus of music. The ancients often gave this name to the genus commonly called enharmonic genus. (Vide Enharmonic.)

**DIRECT HARMONY**, Is that wherein the Bass is fundamental, and where the superior parts preserve a direct order between themselves, and with the bass. Varied harmony is that where the generating found or the fundamental is in some one of the superior parts, and where some other found of the concord is transported to the bass below the rest. (Vide Direct, &c.)

**FIGURED HARMONY**, Is that wherein we make several notes pass on a concord. We figure the harmony by conjoint or disjoint degrees. When we figure by conjoint degrees, we necessarily use other notes than those which form the concord; notes which are not on the bass, and are reckoned as nothing in harmony: These intermediate notes ought not to ascend to the beginning of the times, and principally the strong times, unless it be as flowings, extent of the voice, or when we form the first note of the short time to bear up the second. But when we figure by disjoint degrees, we cannot absolutely make use of any notes but those which form the concord, whether consonant or dissonant. Harmony also figures by suspended or supposed sounds. (Vide Suspension, Supposition.)

**HARMONIOUS**, Every thing which forms an effect in harmony, and even sometimes every thing which is sonorous, and fills the ear, by voices, instruments, and simple melody.

**HARMONIES**, Whatever belongs to harmony; as the harmonic divisions of the monochord, the harmonic proportion, the harmonic canon, &c.

**HARMONIC**, By this name are called all the concomitant or accessory sounds, which, by the principle of resonance, accompany any found, and render it divisible. Thus all the aliquots of a sonorous chord give it harmonies.

**HARMONIST**, A musician ingenious in harmony. “Such an one is a good harmonist.” “Durante is the greatest harmonist in Italy, that is, in the world.”

**HARMONOMETRE**, An instrument proper for measuring harmonic connections. If we could observe and follow with the ear and eye, the bodies, knots, and all the divisions of a chord sonorous in its vibration, we should have a natural harmonometre very exact; but our gross senses not being sufficient for these observations, we supply them by a monochord, divided at our pleasure by moveable bridges, and this is the best natural harmonometre which has been yet discovered. (Vide Monochord.)

**HARMONIC**

**HARMONIC HAND**, Is the name which Aretin gave to the gamut which he invented, to shew the connection of his hexachords, of his six letters and six syllables, with the five tetrachords of the Greeks. He represented this gamut by the figure of a left-hand, on the fingers of which were marked all the sounds of the gamut, as well by the correspondent letters as by the syllable which he had joined to them, by passing, by the rule of divisions, from one tetrachord or finger to another, according to the place where the two semitones of the octave were placed by the B sharp or B flat, that is, according as the tetrachords were conjoint or disjoint. (Vide Gamut, Divisions.)

**HARPALICE**, A kind of song, appropriated to young girls amongst the ancient Greeks. (Vide Song.)

**HAUT DESSUS**, This is, when the singing treble is divided, the superior part. In instrumental parts we always say, first treble, and second treble; but in vocal, we sometimes say, haut treble, and bass treble.

**HAUTE TAILLE** or **TENOR**, Is that part of music which is also simply called tenor. When the tenor is subdivided into two other parts, the lower takes the name of basse Taille, or concordant, and the higher is called haute taille.

**HEAD**, The head or body of a note is that part which determines its position, and to which the tail is fixed when it has one. (Vide Tail.)

Before the invention of printing, the notes had only black heads, for the greatest part of the notes being square, it would have been too long to make them white in writing them. In the impression, the heads of the notes were made white, that is, vacant in the middle. At present both are in use, and all the rest being equal, a white head always denotes a double power to that of a black. (Vide Notes, Powers of Notes.)

**HEMI**, A Greek word much used in music, and which signifies half. (Vide Semi.)

**HEMIDITON**, Was, in the Greek music, the interval of major third diminished a semitone, that is, a minor third. The hemiditon is not, as might be believed, the half of a diton or tone, but it is the diton less than the half of a tone, which is entirely different.

**HEMIOLE**, A Greek word, signifying the entire and a half, and which has, in some respects, been consecrated to music. It expresses the connection of two quantities, one of which is to the other as 15 to 10, or as 3 to 2. It is otherwise called the sesquialter connection.

It is from this connection that the consonance arises, called diapente or fifth; and the ancient sesquialter rhyme arose from it also.

The ancient Italian authors give also the name of hemiole, or hemiolian, to that kind of triple measure, each of whose times is a crotchet. If this crotchet is without a tail, the measure is called hemiolia maggiore, because it is struck more slowly, and that two tailed crotchets are necessary for each time. If each time contains only one tailed crotchet, the measure is struck a double quicker, and is called hemiolia minore.

HEMIOLIAN, This is the name which Aristoxenes gives to one of the three kinds of the chromatic genus, whose divisions he explains. The tetrachord 30 is therein divided into three intervals, the two first of which, equal between themselves, are each the sixth part, and of which the third is two thirds  $5 + 5 + 20 = 30$ .

HEPTACHORD, A lyre or cithara with seven chords, as was that of Mercury, according to the report of many.

The Greeks also gave the name of heptachord to a system of music formed of seven sounds, as our gamut at present. The synemenon heptachord, otherwise called the lyre of Terpander, was composed of sounds expressed by these letters of the gamut, E. F. G. a. b. c. d. The heptachord of Philolaüs substituted B sharp in the place of B flat, and may be expressed thus, E. F. G. a.  $\sharp$  b. c. d. Each chord had a connection with one of the planets. The Hypate to Saturn, the Parhypate to Jupiter, and so on.

HEXACHORD, An instrument of six chords, or system composed of six sounds, as, for instance, the hexachord of Guido d'Arezzo.

HEXARMONIAN, A strain or air, from a loose and effeminate melody, as Aristophanes expresses it, in his reproaches to Philoxenes, its author.

HOMOPHONY, This was, in the Greek music, that kind of symphony which was formed in unison, in opposition to antiphony, which was executed in the octave. This word from  $\sigma\mu\phi\omega\sigma$ , like, and  $\phi\omega\eta\eta$ , a sound.

HUNTING AIR, This name is given to certain airs and flourishes with horns and other instruments, which, it is said, awaken the idea of the tones, which these same horns give in the chase.

HYMEE, A song of the miller's among the ancient Greeks, otherwise called epiaulia. (Vide that word.)

HYMENÆA, A marriage song amongst the ancient Greeks, otherwise called epithalamium. (Vide Epithalamium.)

HYMN, A song in honour of the gods, or of heroes. There is this difference between the hymn and the cantic, that the latter most commonly relates to actions, and the hymn to persons. The first airs of all nations were either cantics or hymns. Orpheus and Linus passed, amongst the Greeks, for the authors of the first hymns:



hymns: And amongst Homer's poetry we have some remains of a collection of hymns in honour of the gods.

**HYPATE**, An epithet by which the Greeks distinguished the lowest tetrachord, and the lowest chord of each of the two lowest tetrachords; which, to them, was quite the contrary, as they followed, in their denominations, an order retrograde to ours, and placed on high the flat which we place low. This choice is arbitrary, since the ideas attached to the word sharp or flat, have no natural union with the ideas attached to the words high and low.

They called tetrachord hypaton that which was the flattest of all, and immediately above the proslambanomenos, or lowest chord of the mode; and the first chord of the tetrachord which immediately followed that, was called hypate-hypaton; that is to say, as the Latins have translated it, "the principal of the tetrachord of the principals." The tetrachord immediately following from flat to sharp, was called tetrachord meson, or of the middle, and the flattest chord was called hypate meson, that is, the principal of the middle.

Nicomachus, the Gerafinian, pretends, that this word hypate, principal, elevated or supreme, was given to the flattest of the chords of the diapason, in allusion to Saturn, which of the seven planets is at the greatest distance from us. We have reason to imagine from thence that this Nicomachus was a Pythagorean.

**HYPATE-HYPATON**, This was the lowest chord of the lowest tetrachord of the Greeks, and of a higher tone than the proslambanomenos. (Vide the preceding article.)

**HYPATE-MESON**, Was the lowest chord of the second tetrachord, which was also the sharpest of the first, because these two tetrachords were conjoint. (Vide Hypate.)

**HYPATOIDES**, Flat Sounds. (Vide Lepsis.)

**HYPERBOLEAN**, A strain or air of the same character as the hexarmonian. (Vide that article.)

**HYPERBOLEON**, The hyperboleon tetrachord was the sharpest of the five tetrachords in the system of the Greeks.

This word is the genitive from the plural substantive ὑπερβολαι, extremities, the sharpest sounds being at the extremity of the rest.

**HYPER-DIAZEUXIS**, A disjunction of two tetrachords separated by the interval of an octave, as were the tetrachord of the hypate's and hyperbole's.

**HYPER-DORIAN**, A mode in the Greek music, otherwise called mixo-lydian, the fundamental or tonic of which was a fourth above that of a Dorian mode. (Vide Mode.)

The invention of the hyperdorian mode is attributed to Pythoclydes.

**HYPER-ÆOLIAN**, The penultimate in sharp of the fifteen modes of the Greek music, the fundamental or tonic of which was a fourth above that of the æolian. The hyper-æolian mode, no more than the hyper-lydian which follows it, was not so ancient as the rest. Aristoxenes does not mention it; and Ptolemy, who admitted no more than seven, did not comprehend those two.

**HYPERIASTIAN** or sharp **MIXO-LYDIAN**, Is the name which Euclid, and many of the ancients, give to the mode more commonly called hyper-ionian.

**HYPER-IONIAN**, A mode in the Greek music, called also by some hyper-iaastian, or sharp mixo-lydian, which had its fundamental a fourth above that of the ionian mode. The ionian mode is the twelfth in order from flat to sharp, according to Alypius's numeration. (Vide Mode.)

**HYPER-LYDIAN**, The sharpest of the fifteen modes in the Greek music, the fundamental of which was a fourth above that of the lydian. This mode, no more than its neighbour the hyper-æolian, was not so ancient as the other thirteen; and Aristoxenes, who names them all, makes no mention of those two.

**HYPER-MIXO-LYDIAN**, One of the modes in the Greek music, otherwise called the hyper-phrygian.

**HYPER-PHRYGIAN**, Called also, by Euclid, hyper-mixolydian, is the sharpest of the thirteen modes of Aristoxenes, forming the diapason, or the octave, with the hypo-dorian, the flattest of all. (Vide Mode.)

**HYPO-DIAZEUXIS**, Is, according to old Bacchius, the interval of fifth, which is found between two tetrachords separated by a disjunction, and moreover, by a third intermediate tetrachord. Wherefore there is a hypodiazeuxis between the tetrachords hypaton and diazeugmenon, and between the tetrachords synnemenon and hyperbolean. (Vide Tetrachord.)

**HYPO-DORIAN**, The flattest of all the modes in ancient music. Euclid says it is the most elevated; but the true sense of this expression is explained at the word hypate.

The hypo-dorian mode has its fundamental a fourth below that of the dorian mode. It was invented, as it is said, by Philoxenes: This mode is affecting, but gay, uniting sweetness to majesty.

**HYPO-ÆOLIAN**, A mode in ancient music, called also, by Euclid, flat hypo-lydian. This mode has its fundamental a fourth below that of the æolian mode.

**HYPO-IASTIAN**. (Vide Hypo-Ionian.)

**HYPO-**

**HYPO-IONIAN**, The second of the modes in ancient music, beginning by the flat. Euclid calls it also hypo-iaastian, and flat hypo-phrygian. Its fundamental is a fourth below that of the ionian mode.

**HYPO-LYDIAN**, The fifth mode of ancient music, beginning by the flat. Euclid calls it also hypo-iaastian, and flat hypo-phrygian. Its fundamental is a fourth below that of the lydian mode.

Euclid distinguishes two hypo-lydian modes, viz. the sharp, which is that of this article, and the flat, which is the same as the hypo-æolian.

The hypo-lydian mode was peculiar to funeral songs, to sublime and divine meditations: Some attribute its invention to Polymnestre, of Colophon; others to Damon, the Athenean.

**HYPO MIXO LYDIAN**, A mode added by Gui d'Arezzo, to those of the ancient music. It is properly the plagal of the mixo lydian mode, and its fundamental is the same as that of the dorian.

**HYPO-PHRYGIAN**, One of the modes in ancient music, derived from the phrygian mode, whose fundamental was a fourth above that of the other. Euclid speaks of another hypo-phrygian mode in the flat of this: It is what is more correctly called hypo-ionian. (Vide that word.)

The character of the hypo-phrygian mode was calm, peaceable, and proper to temperate the vehemence of the phrygian. It was invented, they say, by Damon, the friend of Pythias, and pupil of Socrates.

**HYPO-PROSLAMBANOMENOS**, The name of a chord added, as it is pretended, by Gui d'Arezzo, a tone lower than the proslambanomenos of the Greeks, that is, below the whole system. The author of this new chord expressed it by the letter Γ of the Greek alphabet, and from thence we receive the name of gamut.

**HYPORCHEMA**, A sort of cantic, by which the feasts of the gods were danced.

**HYPO-SYNAPHE**, Is, in the Greek music, the disjunction of two tetrachords separated by the interposition of a third, conjoint with those two, so that the homologous chords of the two tetrachords, disjoined by hypo-synaphe, have five tones, or a minor seventh of interval between them. Such are the tetrachords hypaton and synnemenon.

## I.

**I ALEME**, A kind of air peculiar to funerals, formerly in use among the Greeks, as the Linos amongst the same people, and the Muneros amongst the Egyptians. (Vide Song.)

**IAMBIC**. There were in the ancient music two kinds of iambic verses, one of which were only recited by the sound of instruments, whereas the rest were sung. We do not comprehend what effect the accompaniment of instruments on a simple recital could produce, and all that can be reasonably concluded from it, is, that the most simple method of pronouncing the Greek poetry, or at least the iambic, was made by appreciable sounds, and even then received much from the intonation of the air.

**IASTIAN**, A name given by Aristoxenes and Alypius to the mode which other authors more generally call ionian. (Vide Mode.)

**IMITATION**. Dramatic and theatrical music concurs to imitation, as well as poetry or painting; 'tis to this principle that all the fine arts are connected, as *Mons. le Batteux* has demonstrated. But this imitation has not the same extent for all. All that the imagination can represent to itself has its origin from poetry. Painting, which does not offer its picture to the imagination, but to the sense, and that one sense alone, paints only objects peculiar to the sight. Music would appear to have the same bounds in regard to the hearing: however it paints all, even the objects which are only visible, by a transformation almost inconceivable, it seems to place the eye in the ear, and the greatest surprise of an art, which agitates only in the movement, is to be able to form from it even the image of a repose. Night, sleep, solitude, and silence, enter into the number of the extensive paintings of music. We know that noise can produce the effect of silence, and silence the effect of noise; as when we slumber at an equal and monstrous lecture, and awaken at the instant that it ceases. But music agitates nearer on us, in exciting, by a sense, affections similar to those which may be excited by another, and as the connection cannot be sensible unless the impression is strong, so painting, stript of that force, cannot render to music the imitations which that draws from it. Let all nature be in a slumber, he that contemplates it, sleeps not; and the art of the musician consists in substituting, in the place of the insensible image of the object, that of the movements which his presence excites in the heart of the contemplator. He will not only agitate the sea, animate the flame of a conflagration, make rivulets flow, the rain fall,

fall, and torrents swell, but he will paint the horrors of a boundless desert, calm the tempest, render the air tranquil and serene, and spread over the orchestra, a new and pleasing freshness. He will not directly represent things, but excite in the soul the same movement which we feel in seeing them.

I have said, under the word Harmony, that no principle is drawn from it which leads to musical imitation, since there is no connection between the concords, and the objects we wish to paint, or the passions we would express. I will shew, at the word Melody, what this principle is, which harmony does not furnish, and what strokes, given by nature, are used by music to represent these objects and these passions.

**IMITATION**, In its technical sense, is the use of the same air, or one similar, in many parts, which make it heard one after the other in the unison, the fifth, the fourth, the third, or in any interval whatsoever. The imitation is always well taken, even in changing several notes, provided that this same air be always known in itself, and that we do not remove far from the laws of a good modulation. Often, to render the imitation more sensible, we make precede a silence or long notes, which seem to stifle the air at the moment that the imitation re-animates it. We treat the imitation as we please, we leave it, we re-take it, and begin another at pleasure: In a word, its rules are as relaxed as those of the fugue are severe, for which reason great masters disdain it, and every imitation too affected, almost always cools a young scholar in composition.

**IMPERFECT**. This word has several significations in music: An imperfect concord is in opposition to a perfect concord, that which bears a sixth or dissonance, and in opposition to the full concord, it is that which has not all the sounds suitable to it, and which ought to render it complete. (Vide Concord.)

The imperfect mode or time was, in our ancient music, that of the double division. (Vide Mode.)

An imperfect cadence is that which is otherwise called irregular cadence.

An imperfect cadence is that which may be major or minor, as the third and sixth. (Vide Consonance.)

In church-music, they call imperfect modes those which are defective high or low, and rest below one of the two terms which they ought to reach.

**IMPROVISARE**, Is to compose and sing a song extempore, with airs or words, accompanied commonly by a guitar, or any other such instrument. There is nothing more common in Italy than to see two marks meet, challenge, attack, and form alternate couplets on the same air, with a vivacity of dialogue, air, and accompaniment, which cannot be believed but by an eye witness.

**INHARMONIC.** An inharmonic relation is, according to Mons. Saverien, a term of music; and he sends us, for an explanation, to the word *Renvoi*, where he does not mention it. In regard to such a term as this, I am entirely ignorant.

**INSTRUMENT,** A term of genus, under which we comprehend all artificial bodies which may render and vary the sounds, after the example of the voice. All bodies capable of agitating the air by any shock, and then to excite, by their vibrations, in that agitated air, undulations pretty frequent, may afford a sound; and all bodies capable of accelerating or retarding these undulations, may vary the sounds. (*Vide Sound.*) There are three methods of rendering sounds on instruments, viz. by the vibrations of the chords, by those of certain elastic bodies, and by the collection of the air shut up within the pipes. I have spoken, at the word *Music*, of the invention of these instruments.

They are generally divided into chord instruments, wind, and percussion instruments. The chord instruments, amongst the ancients, were very numerous. The most known are the following: *Lyra*, *Psalterium*, *Trigonium*, *Sambuca*, *Cithara*, *Pectis Magas*, *Barbiton*, *Testudo*, *Epigonium*, *Simmicium*, *Epandoron*, &c. All these instruments were touched with the fingers, or with the *plectrum*, a kind of bow.

For their principal wind instruments, they had those call'd *tibia*, *fistula*, *tuba*, *cornu*, *lituus*, &c.

The instruments of percussion were those which they named *Tympanum*, *Cymbalum*, *Crepitaculum*, *Tintennabulum*, *Crotalum*, &c. But many of those did not vary their sounds.

We cannot here find articles for those instruments, or for those of the modern music, whose number is excessive. The instrumental part, not being entered within the plan of my work, for the encyclopædia, has hindered me, by the extent of the knowledge which it requires, from placing it in this.

**INSTRUMENTAL,** What belongs to the play of instruments. “An instrumental turn in singing.” “Instrumental music.”

**INTENSE.** Intense sounds are those which have the greatest force, which are heard at the greatest distance. They are also those, which, being rendered by well extended chords, vibrate by their means even more strongly. This word is Latin, as well as that of *Remiss* oppos'd to it, but, in theoric writings, both the one and the other is frenchified and anglicised.

**INTERCIDENCE.** A term in church-music: (*Vide Diaptosis.*)

**INTER-ACT,** A space of time which passes between the end of the act of an opera, and the beginning of the following act; and, during which, the representation is suspended, whilst the action is supposed to continue elsewhere. The orchestra fills



fills this space, in France, by the execution of a symphony, which has also the name of interlude.

It does not appear, that the Greeks ever divided their drama's by acts, and, consequently, had no interludes.

The representation was not suspended on their theatres from the beginning of the piece to the end. It was the Romans, who, little smitten with the spectacle, began first to divide it into many parts, whose intervals offered a relaxation to the attention of the spectators, and this custom has been continued amongst us.

Since the interlude is formed to suspend the attention and quiet the mind of the spectator, the theatre should remain empty, and the intermedes with which it was formerly filled, formed an interruption of very bad taste, which could not fail of injuring, by rendering the thread of the action forgotten. However, Moliere himself did not see this simple truth, and the inter-acts of his last piece were filled with intermedes. The French, whose spectacles have more reason than fire, and who do not love to be kept long in silence, have, of late, reduced the inter-acts to the simplicity which they ought to have; and it is to be desired, for the perfection of the theatre, that their example should be every where followed.

The Italians, whom an exquisite sentiment often guides more than reason, have proscribed the dance of the dramatic action. (Vide Opera.) But by a consequence which arises from the too great duration that they would give the spectacle, they fill their inter-acts with ballets, which they banish from the piece; and tho' they may avoid the absurdity of a double imitation, they fall into that of the transposition of the scene; and leading the spectator thus from object to object, make him forget the principal action, lose the interesting parts, and, to give him the pleasure of the eye, take from him that of the heart. They, however, begin to feel the error of this monstrous assemblage, and, after having almost already banished the intermedes of inter-acts, doubtless they will not hesitate to abolish the dances, and to preserve it, as is becoming, to make a separate and brilliant spectacle at the end of the piece.

But tho' the theatre remains empty in the inter-act, I do not say that the music should be interrupted, for, in the opera, where it makes a part of the existence of things, the sense of hearing ought to have such an union with that of the sight, that whilst we see the situation of the scene, we may hear the harmony, which we must suppose inseparable; so that its concurrence may not at length appear strange or new under the air of authors.

The difficulty which is presented on this subject, is to know what the musician ought to dictate to the orchestra, when there passes nothing more on the stage. For, if the symphony, as well

as dramatic music, is no more than a continual imitation, what should it say when no one speaks? What should it do when there is no longer any kind of action? I answer to that, that though the theatre be empty, the soul of the audience is not so : there must have remained on them a strong impression of what they have just seen and heard. 'Tis for the orchestra to nourish and sustain this impression during the inter-act, so that the spectator may not reach the conclusion of the following act with the same coldness as he began the piece; and that interest may be united in his soul as are the events in the represented action. By this means, the musician never ceases to have an object of imitation, either in the situation of the characters, or that of the spectators. The one never hearing but the expression of those sentiments which they feel go out from the orchestra, are, as it were, identified with what they hear, and their condition is so much the more pleasant, as there reigns in it a more perfect concord between what strikes their senses, and touches their heart.

The ingenious musician draws also from his orchestra another advantage, to give the representation all the effect that it can have, by leading gradually the spectator, attentive to the most favourable situation of the soul, to the effect of the scenes which he is about to see in the approaching act.

The duration of the inter-act has no fixed measure, but it is supposed more or less great in proportion to the time which that part of the action requires which passes behind the theatre. However, that duration ought to have the bounds of supposition, relatively to the hypothetic duration of the whole action, and those of reality, relative to the duration of the representation.

This is not the place for examining if the rule of the 24 hours has a foundation sufficient, and if it is never permitted to break through it.

But if we would give to the supposed duration of an inter-act, the bounds drawn from the nature of things, I cannot see that any others can be found than those of the time during which no sensible and regular change was made in nature, as there is none made apparently in the scene during the inter-act. Moreover, this time is, in its greatest extent, nearly twelve hours, which form the middle duration of a day and night. This space being passed, there is no more possibility, nor illusion in the duration of an inter-act.

In regard to the real duration, it ought to be, as I have said, proportioned, both to the duration of the representation, and to the partial and relative duration of what passes behind the scenes. But there are other bounds drawn from the general end, which we propose, viz. the measure of attention; for we ought to be  
very

very cautious not to make the inter-act continue so far as to let the spectator fall into a delirium and draw near to slumbering. This measure has not such a precision in itself, but that the musician, who has fire and genius of soul, may, with the aid of his orchestra, extend it much farther than any other. I do not even doubt but there are methods of deceiving the spectator by the effective duration of the inter-act, by making him esteem it more or less great, by the methods of inter-fixing the characters of the symphony. But it is time to finish this article, which is already too long.

**INTERLUDE,** A piece of music or dancing, inserted at the Opera-House, and sometimes the Play-House, between the acts of a long piece, to enliven and ease the minds of the spectators, sorrowful thro' the tragic, and interested in its grand concern.

There are interludes, which are real comic or burlesque drama's, the which dividing thus an interesting part by one interesting also, toss and turn the attention of the spectator in contrary senses, and in a method quite opposite to taste and reason. As dancing, in Italy, does not, and ought not, to enter into the constitution of the lyric drama, we are obliged to admit it on the theatre, to use out in a detached manner from the piece. It is not that which I find fault with; on the contrary, I think it necessary to efface, by an agreeable ballet, the sad impressions left by the representation of a tragic opera; and I highly approve, that this ballet forms a subject which has no connection with the piece; but what I disapprove, is, that they divide the acts by similar ballets, which, dividing thus the action, and destroying the interesting parts, make, as it were, a fresh piece of every act.

**INTERVAL,** The difference of one sound and another between the flat and sharp: This is the whole space which one of the two would have to pass thro' to reach the unison of the other. The difference between interval and extent, is, that the interval is considered as undivided, and the extent as divided. In the interval we consider the two terms only: in the extent, we suppose their intermediaries: The extent forms a system, but the interval may be uncomposed.

To take this word in its most general sense, it is evident that there are an infinity of intervals; but as, in music, we bound the number of sounds to those which compose a certain system, we bound also, by that means, the number of intervals to those which these sounds may form between themselves. So, that by combining two by two, all the sounds of any system soever, we shall have all possible intervals in the same system; on which it will remain to reduce under the same kind, all those which shall be found equal.

The

The ancients divided the intervals of their music in simple or uncomposed intervals, which they called *diastems*, and in composed intervals, called *systems*.

The intervals, says *Aristoxenes*, are different five ways. First, In extent. A great interval differs thus from a smaller. Secondly, In resonance or concord. By this a consonant interval differs from a dissonant. Thirdly, In quantity, as a simple interval differs from one composed. Fourthly, In genus. Thus the diatonic, chromatic, and enharmonic genera, differ in themselves. Fifthly, In the nature of their connection; as the interval, whose rates may be expressed by numbers, differs from an irrational interval. Let us speak a few words on all these differences.

I. The smallest of all the intervals, according to *Bacchius*, is the enharmonic diesis. The greatest, to take it, at the flat extremity of the hypo-dorian mode, to the sharp extremity of the hypo-mixo-lydian, would be of three complete octaves; but as there is a fifth to be removed, or even a sixth, according to a passage of *Adrastes*, cited by *Meibonius*, the fourth remains above the dis diapason; that is, the eighteenth, as the greatest interval of the Greek diagram.

II. The Greeks divided, as we do the intervals, into consonant and dissonant, but their divisions were not the same as ours, (*Vide Consonance*.) They again sub-divided the consonant intervals into two kinds, without reckoning the unison, which they called homophony, or a similarity of sounds, and whose interval is void. The first kind was the antiphony, or opposition of sounds, which was made in the octave, and was properly no more than a repique of the same sound, but however an opposition from flat to sharp. The second kind was a paraphony, or distinction of sounds, under which was comprehended every consonance except the octave and its repiques: All the intervals, says *Theon*, of *Smyrna*, which are neither dissonant, nor in unison.

III. When the Greeks speak of their *diastems*, or simple intervals, we must not take this term in its full rigour, for the diesis itself was not, according to them, exempt from composition; but we must always connect it with the genus, to which the interval is applied. For instance, the semitone is an interval simple in the chromatic genus, and in the diatonic, composed in the enharmonic. The tone is composed in the chromatic, and simple in the diatonic; and the diton itself, or major third, which is an interval composed in the diatonic, is uncomposed in the enharmonic. Wherefore, what is a system in one genus, may be a diastem in another, and so reciprocally.

IV. On the genera: Divide successively the same tetrachords, according to the diatonic genus, the chromatic, and enharmonic,  
you

you will have three different concords, which, compared together, instead of three intervals, will produce nine, besides the combinations and compositions which can be made of them, and the difference of all these intervals, which will produce a multitude of others. If you compare, for instance, the first interval of each tetrachord in the enharmonic, and flat chromatic of Aristoxenes, you will have, on one side, a fourth, or  $\frac{3}{1\frac{1}{2}}$  of a tone, on the other, a third, or  $\frac{4}{1\frac{1}{2}}$ , and the two sharp chords will make together an interval; which will be the difference of the two preceding, or the twelfth part of a tone.

V. Passing next to the connections, this article leads me to a small digression.

The Aristoxenians pretended that their music was very well simplified by their equal divisions of intervals, and laughed exceedingly at the whole of Pythagoras's calculation. It seems, however, to me, that this pretended simplicity consisted only in the words, and that if the Pythagoreans had understood their master, and their music, a little better, they would very soon have ceased railing at their adversaries.

Pythagoras did not form those sounds, and their connection, which he first calculated. Guided by experience, he only took an abridgement of his observations. Aristoxenes, incommoded with all his calculations, formed in his brain a system quite different, and, as if he could have changed nature at his pleasure, to have simplified the words, was, he thought, simplifying things, whereas in reality it was entirely contrary.

As the connections of the consonances were simple and easy to be expressed, these two philosophers were in agreement thereon: they were so even on the first dissonances; for they equally agreed that the tone was the difference of the fourth and fifth. But how could they determine this difference otherwise than by calculation? Aristoxenes seems to desire none, and on this tone, whose connection he boasted to be ignorant of, he built his whole musical doctrine. What could there be more easy than to shew him the falseness of his operations, and the justness of those of Pythagoras? But, should he have said, I always take doubles, or halves, or thirds. This is more simple, and more easily made than your commas, your limma and apotomes.—I confess it, Pythagoras had answered: but tell me, I beg, how you take these doubles, halves, and thirds? The other had replied, that he toned them naturally, or that he took them on his monochord.—Well, had answered Pythagoras, tone me the fourth of tone justly. If the other had been quack sufficient to have done it, Pythagoras had added. But is your monochord well divided? Shew me, I beg, what method you have used to take  
L 1  
therein

therein the third or fourth of a tone? I cannot see, in such a case, what Aristoxenes could have answered. For, to say that the instrument had been tuned by the voice, besides that it would have been falling into the circle, this was not agreed to by the Aristoxeneans, since they all avowed by their cleff, that the voice should be a long time exercised on an instrument of the greatest justness, to be able to tune the intervals of the flat chromatic, and enharmonic genus.

Moreover, since calculations not less composed are necessary, and even geometrical operations more difficult, to measure the thirds and fourths of the tone of Aristoxenes, than to assign the connections of Pythagoras, it is with reason that Nicomachus, Boetius, and many other theoreticians preferred the just and harmonic connections of their master to the divisions of the Aristoxenian system, which were not more simple, and which gave no interval in the justness of its origin.

We must take notice, that those reasonings which were proper to the music of the Greeks, cannot be equally suitable to ours, because all the sounds of our system concur in consonances, which could not be done in theirs, but for the diatonic genus only.

It follows hence, that Aristoxenes distinguished with reason the intervals into rational or irrational; since, though they were all rational in the system of Pythagoras, the greatest part of the dissonances was irrational in his.

In modern music, we consider the intervals also many ways, viz. either generally, as the space or distance of some one of these given sounds; or, as that only of the distances which may be marked; or lastly, as those which are marked on different degrees. According to the first sense, every numerical power, as is the comma, or silent, as the diesis of Aristoxenes, may express an interval. The second sense is applied to the intervals only received in the system of our music, the least of which is the minor semi-tone, expressed on the same degree by a diesis, or B flat. (Vide Semi-tone.) The third acceptance supposes some difference in position: that is, one or more degrees between the two sounds which form the interval. 'Tis in this last acceptance that the word is fixed in practice; so that two equal intervals, such as are the false fifth and triton, bear however different names, if the one has more degrees than the other. We divide, as the ancients did the intervals, into consonants and dissonants. The consonants are perfect or imperfect. (Vide Consonance.) The dissonances are so by nature, are become so accidentally. There are only two intervals dissonant by their nature, viz. the second and seventh, by understanding their octaves and repliques. These



These two also may be reduced into one only, but all consonances may become dissonant by accident. (Vide Dissonance.)

Moreover, every interval is simple or redoubled. The simple interval is that which is contained within the bounds of the octave. Every interval which exceeds this extent is redoubled; that is composed of one or more octaves, and of the simple interval whose repique it is.

The intervals which are simple are again divided into direct and varied. Take as a direct any simple interval soever, its complement in the octave is always varied from that, and reciprocally.

There are only six kinds of simple intervals, three of which make complements of three others in the octave, and consequently their variations only. If you then take the smallest intervals, you will have for direct, the second, third, and fourth; for varied, the seventh, sixth, and fifth. Let the one be direct, the others will be varied, and so reciprocally.

To find the name of any interval soever, we must only add the unity to the number of the degrees which it contains. Wherefore the interval of one degree will give the second; of two, the third; of three, the fourth; of seven, the octave; of nine, the tenth, &c. &c. But this is not sufficient to determine an interval; for under the same name it may be major or minor, just or false, diminished or superfluous.

The imperfect consonances, and the two natural dissonances, may be major or minor, which, without changing the degree, makes, in the interval, the difference of a semi-tone. If from a minor interval, we take again a semi-tone, this interval becomes diminished. If we augment a major interval a semitone, it becomes superfluous.

The perfect consonances are invariable by their nature. When their interval is what it ought to be, they are called just. If we change this interval a semi-tone, the consonance is called false, and becomes a dissonance; superfluous, if the semi-tone is added; diminished, if it is cut off. The name of false fifth is given improperly to the diminished fifth: it is taking the kind for the genus. The superfluous fifth is quite as false as the diminished, and even in many respects more so.

# T A B L E

## OF ALL THE

### SIMPLE INTERVALS

Practicable in Music.

Intervals expressed by Notes.	Name of the Interval.	Degrees which it contains	Power in Tones and Semi-tones.	Reference in Numbers.
Ut * — re ♭	Second diminished	— 1 —	— 0 —	375 — — 384
Si — — ut	Second minor	— 1 —	1 Semi-Tone	15 — — 16
Ut — — re	Second major	— 1 —	1 Tone	8 — — 9
Ut — — re *	Second superfluous	— 1 —	1 $\frac{1}{2}$ Tone	64 — — 75
Si — — re ♭	Tierce diminished	— 2 —	1 Tone	125 — — 144
Mi — — fol	Tierce minor	— 2 —	1 $\frac{1}{2}$ Tone	5 — — 6
Ut — — mi	Tierce major	— 2 —	2 Tones	4 — — 5
Fa — — la *	Tierce superfluous	— 2 —	2 $\frac{1}{2}$ Tones	96 — — 125
Ut * — fa	Fourth diminished	— 3 —	2 Tones	75 — — 96
Ut — — fa	Fourth just	— 3 —	2 $\frac{1}{2}$ Tones	3 — — 4
Ut — — fa *	Fourth superfluous			
	called Triton	— 3 —	3 Tones	32 — — 45
Fa * — ut	Fifth diminished			
	called false Fifth.	— 4 —	3 Tones	45 — — 64
Ut — — fol	Fifth just	— 4 —	3 $\frac{1}{2}$ Tones	2 — — 3
Ut — — fol *	Fifth superfluous	— 4 —	4 Tones	16 — — 25
La * — fa	Sixth diminished	— 5 —	3 $\frac{1}{2}$ Tones	125 — — 192
Mi — — ut	Sixth minor	— 5 —	4 Tones	5 — — 8
Sol — — mi	Sixth major	— 5 —	4 $\frac{1}{2}$ Tones	3 — — 5
Re ♭ — fi	Sixth superfluous	— 5 —	5 Tones	72 — — 125
Re * — ut	Seventh diminished	— 6 —	4 $\frac{1}{2}$ Tones	75 — — 128
Mi — — re	Seventh minor	— 6 —	5 Tones	5 — — 9
Ut — — fi	Seventh major	— 6 —	5 $\frac{1}{2}$ Tones	8 — — 15
Sol ♭ — fa *	Seventh superfluous	— 6 —	6 Tones	81 — — 160
Ut — — ut	Octave	— 7 —	6 Tones	1 — — 2

We here find a table of all the simple intervals practicable in music, with their names, their degrees, their powers, and references.

We must take notice in this table, that the interval, called by the harmonists, superfluous seventh, is only a major seventh, with a peculiar accompaniment; the true superfluous seventh, as it is marked in the table, not having a place in harmony, or only successively, as an enharmonic transition, never rigorously in the same concord.

We should observe also, that the greatest part of these references may be determined several ways: I have preferred the most simple, and that which gives the fewest numbers.

To compose or redouble one of these intervals that are simple, it is sufficient to add to it the octave as many times as we chuse, and to have the name of this new interval, we must add to the simple name of interval as many times seven as it contains octaves. Reciprocally, to know the simple of a redoubled interval, whose name it has, we must only reject seven as often as we can. The rest will give the name of the simple interval which produced it. Chuse you a redoubled fifth? that is, the octave of the fifth, or the fifth of the octave? To five add seven, you will have twelve. The redoubled fifth is then a twelfth. To find the simple of a twelfth, reject seven from the number twelve as many times as you can, the remaining five shews you its fifth. In regard to the connection, we must only double the consequence, or take the half of the antecedent of the simple powers as many times as we add octaves, and we shall have the powers of the redoubled ratio. Wherefore, two three, being the ratio of the fifth; one three, or, two six, will be that of the twelfth, &c. Wherein we must observe, that in musical terms, to compose or redouble an interval, is not to add it to itself, but to add to it an octave: to triple it, is to add two of them, &c.

I ought to mention here, that all the intervals expressed in this dictionary by the names of notes, ought always to be reckoned from flat to sharp, so that this interval, ut si, is not a second, but a seventh; and si ut, is not a seventh, but a second.

**INTONATION**, The action of tuning. (Vide *To Tune*.) The intonation may be just or false, too high or too low, too strong or too weak, and then the word intonation, accompanied with an epithet, is understood of the method of tuning.

**IONIAN** or **IONIC**, The ionian mode was, counting from flat to sharp, the second of the five middle modes of the Greek music. This was also called iastian, and Euclid calls it the Phrygian flat. (Vide *mode*.)

**IRREGULAR**. Irregular modes in church-music, are those whose extent is too great, or who have some other irregularity. Formerly,

Formerly, that cadence which did not fall on one of the essential chords of the tone was called irregular; but *Monf. Rameau* has given this name to a particular cadence, in which the fundamental bass ascends from fifth, or descends from fourth, after a concord of sixth added. (*Vide Cadence.*)

---

## J.

**TO JAR**, Is to lose the intonation; that is, to change improperly the justness of the intervals, and, consequently, to sing false. There are some musicians, whose ear is so just, that they form no jar, but such as are rather uncommon. Many others do not jar for another reason, since, to lose the tone it must first have been found. To sing without a key, to bawl, force the voice too high or too low, and to have more regard to the extent than to the justness, are methods almost sure to spoil the ear, and at the same time to jar.

**JARGON**, Is, in general, every emotion of the air which renders itself sensible to the audible organs. But in music, the word jargon is opposed to sound, and is understood of every sensation of the hearing, which is not sonorous and appreciable. We may suppose, to explain the difference in regard to this, between the jargon and sound, that the last is appreciable only by the concurrence of its harmonies, and the jargon is not so, because it is deprived of it. But besides that this method of appreciation is difficult to conceive, if the emotion of the sound, caused by the sound, makes the aliquots of that chord vibrate with another, we cannot see why the emotion of the air, caused by the jargon, shaking that same chord, should not, at the same time, shake its aliquots. I do not know that any propriety of the air has been made which can make it suspected, that the agitation which produces the sound, and that which produces the prolonged jargon, should not be of the same nature; and that the action and re-action of the air and the sonorous body, or of the air and the jarring body, should be caused by different laws in the effect of each.

Might it not be conjectured, that the jargon is not of a different nature from the sound, that itself is only the sum of a confused multitude of different sounds, which are heard at a time, and render, in some sort, their undulations mutually contrary. All elastic bodies seem to be more sonorous in proportion as their  
matter

matter is more homogenous, as the degree of cohesion is more equal throughout, and as the body is not, as it were, divided into a multitude of small masses, which, having different solidities, resound consequently in different tones. Why should not the jargon be from the sound, since it excites it? For every jargon makes the chords of a harpsichord resound, not some ones as does a sound, but all together, because there is not one which finds its unison, or its harmonies. Why should not the jargon be from the sound, since by sounds the jargon is made? Touch, at the same time, all the keys of an instrument, and you will produce a total sensation, which will be a jargon only, and whose effect will be prolonged by the resonance of the chords, only as every other noise which would make the same chords resound. Why should not the jargon be from the sound, since a too strong sound is veritably a jargon, as a voice which screams to its utmost height, or particularly as the sound of a large bell, which we hear even in the clapper itself. For it is impossible to appreciate it, unless, when issuing from the clapper, the sound be sweetened by a convenient distance.

But it may be said, how happens this change of an excessive sound into a jargon? It is because the violence of the vibrations renders the resonance of so great a number of aliquots sensible; because the mixture of so many different sounds forms then its ordinary effect, and is no longer any thing more than noise. Wherefore the aliquots which resound are not only the half, third, fourth, and all the consonances, but the seventh part, the ninth, the one hundredth, and still farther. All this forms an effect similar to that of all the keys of a harpsichord struck at the same time, and by this means the sound becomes a jargon.

The name of jargon is given, in contempt, also to a confused and noisy piece of music, wherein more *Fracas* is heard than harmony, and more clamour than air. “This is only jargon.” “This opera makes a great jargon, and little effect.”

JULE, The name of a kind of hymn or song amongst the Greeks, in honour of Ceres and Proserpine. (Vide Song.)

JUST. This epithet is generally given to the intervals whose sounds are exactly in the connection which they ought to have, and to voices which strike these intervals always in justness; but it is especially applied to perfect consonances. The imperfect may be major or minor; the perfect are only just: as soon as they are altered a semi-tone, they become false, and consequently dissonances. (Vide Interval.)

JUST, Is sometimes an adverb also. “To sing just.” “To play just.”

## K.

**K**EYS, A general stave or sum of the sounds of all the system, which results from the relative positions of the three cleffs. This position gives an extent of twelve lines, and, consequently, of twenty-four degrees, or three octaves and a fourth. All that exceeds this space, above or below, cannot be marked but by the assistance of one or more accidental lines, added to the fifth which compose the stave of a cleff.

The notes or diatonic touches of the keys, which are always constant, are expressed by the letters of the alphabet, with the difference of the notes of the gamut, which, being moveable and relative to the modulation, bear names which express these connections. (Vide Gamut.)

Each octave of the keys comprehend thirteen sounds, seven diatonic and five chromatic, represented on the instrumental cleff by so many touches. Formerly these thirteen touches answered to fifteen chords, viz. one more between the re diesis and the natural mi, the other between the sol diesis and the la; and these two chords which formed enharmonic intervals, and which were made to sound at will by means of two broken touches, were looked upon then as the perfection of the system; by virtue of our rules of modulation, these two have been cut off, because it would have been necessary for them to be placed every where. (Vide Cleff.)

**KNOTS**, Those fixed points were called knots in the which a sonorous chord, put into vibration, was divided into vibrating aliquots, which render another sound than that of the entire chord. For instance, if of two chords, one of which will be the triple of the other, we make the smallest sound, the greater will answer, not by the sound which it has as an entire chord, but by the unison of the smallest; because, in that case, the greater chord, instead of vibrating in its totality, is divided, and vibrates only by each of its thirds.

The immoveable points, which are the divisions, and which, in some respect, take the place of bridges, are what Mont. Sauvour has called knots; and he has called ventres the middle points of each aliquot, where the vibration is greatest, and where the chord is farthest removed from the line of the stop.

If, instead of making another smaller chord sound, we divide the greater to the point of one of its aliquots, by a trifling obstacle which retards it without subjecting it, the same case will again be met with by making one of the two parts resound,  
for



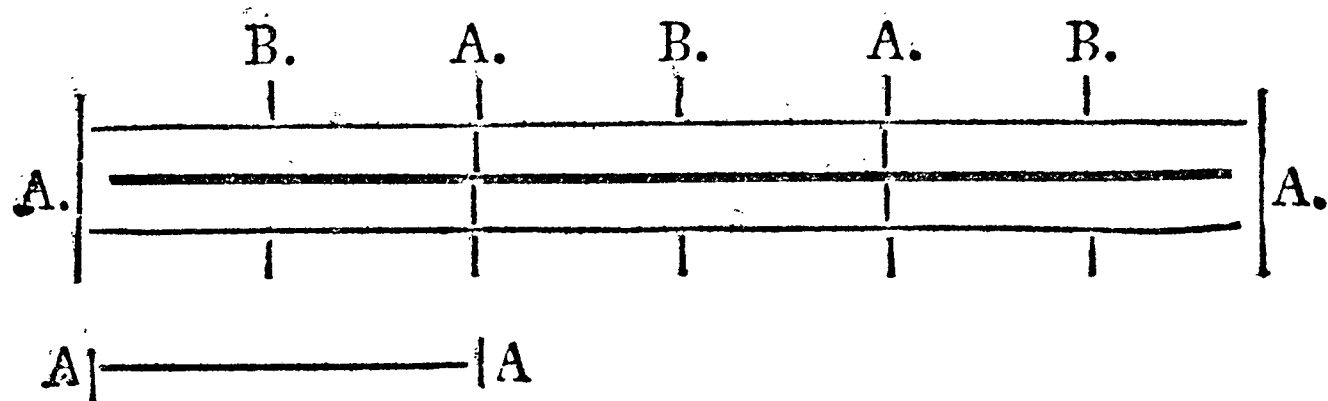
for, then the two will resound in the unison of the small, and we shall see the same knots, and the same venties as before.

If the smaller part is not the immediate aliquot of the greater, but that they have only one common aliquot, they will then be divided both according to their common aliquot, and we shall see knots and venties, even in the smaller parts.

If the two parts are incommensurable, that is, that they have no common aliquot, then there will be no resonance, or there will be only that of the smaller part, unless we strike strong enough to force the obstacle and make the entire chord resound.

Monf. Sauveur found a method to shew these knots, &c. to the academy, in a very sensible manner, by placing on the chord papers of two colours, one in the divisions of the knots, and the other in the middle of the ventres; for then at the sound of the aliquot we always saw the papers of the ventres fall, and those of the knots remain in their place.

Sonorous Chord in Vibration by its Aliquots at the Sound of one between them.



A. Knots, where were the papers of one Colour.

B. Ventue, where were the papers of another Colour.

## L.

**L** A, The name of the fixth note of our gamut, invented by Guy Aretin.

**LARGE**, The name of a kind of note in our old music, whose powers were augmented by drawing several strokes, not only on the sides, but thro' the middle of the note, which Muris forcibly blames, as an unnatural innovation.

**LARGO**. This word written at the head of an air, specifies a slower movement than the adagio, and the last of all in slowness.

M in

ness. It shews that we must extend the long sounds, time and measure, &c.

The diminutive *larghetto* denotes a movement rather quicker than *largo*, more slow than *andante*, and approaching nearly to *andantino*.

**LEAP.** Every passage from one sound to another by disjoint degrees is a leap. There is a regular leap, which is always made on a consonant interval, and an irregular on a dissonant. This distinction happens from all the dissonances, except the second, which is not a leap, being more difficult to tune than the consonances. A necessary observation in melody to compose easy and agreeable airs.

**LEMME,** A silence or pause of a short time, in the catalectic rhyme. (Vide Rhyme.)

**LENE,** A sound sustained by a part during two or more measures, whilst the other parts are changing. (Vide Measure.) It happens sometimes, but seldom, that all the parts are lene's at the same time, and in that case the lene must not be so long, that the sentiment of the measure be forgotten.

**LEPSIS,** The Greek name of one of the three parts of the ancient *melopœa*, called also sometimes *Euthia*, by which the composer discerns, if he ought to place his air in the system of bass sounds called *hypatoïdes*, in that of sharp sounds called *netoïdes*, or that of middling sounds called *mesoïdes*. (Vide *Melopœa*.)

**LICENCE,** A liberty which the composer takes, and which seems contrary to rules, tho' it be in their principle; for herein the licences are distinguished from faults. For instance, it is a rule in composition not to ascend from the minor third, or minor sixth, to the octave. This rule is derived from the law of harmonic union, and from that of the preparation. When then we ascend from the minor third, or minor sixth, to the octave, so that there be however an union between the two concords, or that the dissonance is prepared, we use a Licence: but if there be neither union nor preparation, we make a fault. It is a rule also not to make two just fifths together between the same parts, particularly by a similar movement: the principle of this rule is in the law of the unity of the mode. Every time then that these two fifths may be made without making two modes be felt, it is a licence, but there is no fault. This explanation was necessary, because the musicians have no clear idea of this word licence.

As the greatest part of the rules of harmony are founded on arbitrary principles, and change by custom and the taste of the composers, it happens thence that these rules vary, are subject to the mode, and that what is a licence at one time, is not so at another. Two or three ages back, it was not permitted to make  
two

two thirds together, particularly of the same kind; however, entire pieces are now made by thirds. Our ancients did not permit three consecutive tones to be tuned diatonically: at present, we tune, without hesitation, as many as the modulations will permit. It is the same thing with false relations, syncopated harmony, and a thousand other accidents of composition, which were first faults, then licences, and, at present, have not any irregularity at all.

**LICHANOS**, Is the name, which, among the Greeks, the third chord of their two first tetrachords bore, because that third chord was touched by the index, which they called Lichanos.

The third chord, in the sharp of the lowest tetrachord, which was that of the hypate's, was formerly called lichanos hypaton, sometimes hypaton diatonos, enharmonios, or chromatiké, according to the Greeks. That of the second tetrachord, or tetrachord of the middle, was called lichanos meson, or meson diatonos, &c.

**LIGATURE**, Was, in our ancient music, the union by a stroke of two or more passed notes, or diatonically, or by disjoint degrees on the same syllable. The figure of these notes, which was square, gave a great facility in uniting them so, which cannot be done at present but by means of the chapeau, on account of the roundness of our notes.

The power of notes which composed the ligature, varied much, according as they ascended or descended; according as they were differently united with a tail, or without; according as these tails were placed on the right or left, ascending or descending; lastly, according to a number of rules so entirely forgotten at present, that perhaps there is not a musician in Europe who is able to decypher the music of some distant antiquity.

**LIMMA**, An interval of the Greek music, which is less by a comma than a major semi-tone, and, being cut off from a major tone, leaves the apotome for a remainder.

The connection of the limma is from 243 to 256, and its generation is found, beginning by ut, at the fifth fifth si, for then the quantity by which this si is surpassed by the adjoining ut, is precisely in the connection which I have laid down.


**LINE**. The lines in music are those horizontal and parallel strokes which compose the stave, and on which, or in the spaces which separate them, we place the notes according to their degrees. The stave in church-music has only four lines, that of music in general has five firm and complete, besides the additional lines often added above or below the stave for the notes which pass its extent.

The lines, whether in church-music, or in any other kind, are reckoned, beginning at the most bass. This most bass is the first, the



the highest is the fourth, in church-music, the fifth in others. (Vide Stave.)

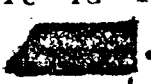
**LINOS**, A kind of rustic air amongst the ancient Greeks; they had also a funeral air of the same name, which answers to what the Latins called *nænia*. The one say that the *linos* was invented in *Ægypt*; others attribute its invention to the Eubeian *linus*.

**LIVELY**, In Italian *vivace*: This word denotes a gay, quick, animated movement, a bold execution, full of fire.

**LONGUE**, Is, in our ancient music, a square note with a tail on the right, thus . It is ordinarily equal to four two-

timed measures, that is, two breves; sometimes it is equal to three according to the mode. (Vide Mode.)

Muris, and his contemporaries, had longues of three kinds, viz. the perfect, the imperfect, and the double. The perfect longue has, on the right side, a tail descending  or . It is

equal to three perfect times, and is itself called perfect, on account, says Muris, of its numerical reference to the Trinity. The imperfect longue is figured as the perfect, and is not distinguished but by the mode: It is called imperfect, because its course is not alone, and as it ought always to be preceded or followed by a breve. The double longue contains two equal times imperfect; it is figured as the simple longue but with twice the bigness . Muris cites Aristotle to prove that

this note is not belonging to church-music.

At present, the word longue is the correlative of breve, (vide Breve) wherefore every note which precedes a breve, is a longue.

**TO LOOSEN**, Is, on fleeve instruments, such as the violin, the violincello, &c. to remove the left hand from its natural position, to advance it on a position higher, or more in sharp. (Vide Position.) The composer ought to know the extent which the instrument has, without loosening, so that when it passes this extent, and loosens, that may be done in a practicable manner.

**LOURE**, A kind of dance, whose air is rather flow, and is ordinarily marked by the measure  $\frac{6}{4}$ . When each time bears three notes, the first is pointed, and that of the middle is render'd a breve. Loure is the name of an ancient instrument, on which the air of the dance in question was played.

**LOW**, In music, signifies the same thing as grave, and this term is opposed to high and sharp. We say also, that the tone is too low, that one sings too low, that the sound must be enforced

forced lower. Low signifies sometimes also slowly, and in this sense it is opposed to strong. We say, to speak low, to sing in low or bass voice. “He sung or spoke so low, that it was with difficulty he was heard.”

Low again is used in the sub-division of the singing trebles, in speaking of that of the two which is below the other; or to speak in other words, low treble is a treble, whose diapason is below the ordinary medium. (Vide Treble.)

LUTHIARY, A workman who makes violins, violincellos, and other similar instruments. This word, which signifies a maker of lutes, has been transmitted by Synecdoche to this kind of workmen, because, formerly, the lute was the instrument most used in former times, and which were most made.

LYDIAN, The name of one of the modes of the Greek music, which was placed in the middle between the æolian and hyperdorian. It was called also sometimes the barbarous mode, because it bore the name of an Asiatic people.

Euclid distinguishes two lydian modes. The above, properly called so, and another which he calls flat lydian, and which is the same with the æolian mode, at least in regard to its fundamental. (Vide Mode.)

The character of the lydian mode was animated, striking, sorrowful however, pathetic, and proper for softness, for which reason, Plato banished it from his Republic. It is on this mode that Orpheus, it is said, attracted the very beasts, and with which Amphion built the walls of Thebes. It was invented, the one say, by Amphion, the son of Jupiter and Antiope; others, by Olympus, a Mysian, a disciple of Marsias; others also, by Melampides; and Pindar says, that it was used, for the first time, at the marriage of Niobe.

LYRIC, What belongs to the lyre: This epithet was formerly given to the poetry made to be sung and accompanied by the lyre, or cithara, by the singer, as odes and other songs, with the difference of the dramatic and theatrical poetry, which was accompanied with flutes by others, but at present it is applied contrariwise to the silly poetry of our opera's, and by extension, to the dramatic and imitative music of the theatre. (Vide Imitation.)

LYTIERSE, A song of the reapers amongst the ancient Greeks.

## M.

**M**A, A syllable with which some musicians sol fa the mi B flat, as they sol fa by si the fa diesis.

**MACHICOTAGE.** By this term is called, in church-music, certain additions and compositions of notes, which fill, by another diatonic course, the intervals of tierces and others. The name of this kind of air comes from that of the Ecclesiastics, called machicots, which formerly executed it after the children of the band.

**MADRIGAL,** A piece of music well studied and ingenious, which was very much in fashion in Italy in the sixteenth age, and even at the beginning of the precedent. The madrigals were generally composed for the voice in five or six parts, all forced, on account of the fugues and designs with which these pieces were filled; but the organists composed and executed also the madrigals on the organ; and it is even pretended, that it was on this instrument that the madrigal was invented. This kind of counter-point, which was subjected to very rigorous laws, bore the name of magridalesque stile. Many authors, for having excelled in it, have immortalized their names in the annals of art. Such were amongst others, Luca Marentio, Luigi Prenefino, Pomponio Nenna, Tommaso Pecci, and particularly the famous Prince of Venosa, whose madrigals, full of knowledge and taste, were admired by all the masters, and sung by all the ladies.

**MAGADIZARE,** Was, in the Greek music, to sing in the octave, as the voices of men and women did naturally when united together; wherefore the magadized airs were always antiphonies. This word comes from magas, the bridge of an instrument, and by extension, an instrument with double chords, each ascending to the octave by means of a bridge, as, at present, our harpsichords.

**MAGASIN,** The Hôtel de la Dependance of the opera at Paris, where the directors and other persons employed in the opera house lodged, and in which is a little theatre, called also theatre, or theatre du magasin, on which the first repetitions were made. This is the odeum of the French music. (Vide Odeum.)

**MAJOR.** The intervals susceptible of variation are called major, when they are so large as to be so without becoming false.

The intervals called perfect, such as the octave, the fifth, and fourth, have no variation, and are only just, as soon as they are altered, they become false. The other intervals may, without changing their names, and without ceasing to be just, vary a certain



certain difference : when this difference may be removed, they are major ; minors, when it may be added.

These variable intervals are five in number, viz. the semi-tone, the tone, the third, the sixth, and seventh. In regard to the tone and semi-tone, their difference from major to minor cannot be expressed in notes, but in numbers only. The major semi-tone is the interval of a minor second, as from *fa* to *ut*, or from *mi* to *fa*, and its connection is from fifteen to sixteen. The major tone is the difference of the fourth and fifth, and its connection is from eight to nine.

The three other intervals, viz. the third, the sixth, and the seventh, always differ a semi-tone from major to minor, and these differences may be noted. Wherefore the minor third has one tone and a half, and the major third two tones.

There are some other smaller intervals, as the diesis and the comma, which may be distinguished in less, minor, middle, major, and maxima ; but as these intervals cannot be expressed but in numbers, these distinctions are useless in practice.

Major is also said of a mode when the tierce of the tonic is major, and then the word mode often is only understood " To pass from major to minor." (Vide Mode.)

**MARCH**, A military air, which is played by instruments of war, and denotes the metre and cadence of the drums, which is properly the march.

Chardin says, that in Persia, when they are desirous of building houses, flattening a piece of ground, or making some other expeditious work, which requires a quantity of hands, they assemble together the inhabitants of one quarter, that they may labour with the sound of the instruments ; and that, by this means, the work may be transacted with much greater zeal and quickness, than if the instruments were not used.

The Marechal de Saxe has shewn, in his reveries, that the effect of the drums was not bounded by a vain noise without utility, but that, according as the movement was more lively or slower, they naturally transported the soldier to press or slacken his pace ; we may also say, that the airs of the marches should have different characters, according to the occasion wherein they were used ; and this is what they ought to have reflected on to a certain point, when they were distinguished and diversified, one for the assembling together, another for the march, another for the charge, &c. &c. But it would have answered very well if they had profited by this principle as much as they might have done. They have, till now, confined themselves to the composing of tunes which might make the metre be felt, and the beating of the drum be clearly heard. The airs of marches also very often are deficient in that particular.

The

The French troops having few military instruments for the infantry, except the fifes and drums, have also very few marches, and the greatest part very badly composed; but there are some admirable in the German armies.

As an example of the concord and tune of the march, I have given the first part of that of the French musqueteers.

March of the Musqueteers of the King of France.

The musical score is presented in two systems. Each system consists of two staves: the top staff is for Hautboys (treble clef, 2/4 time) and the bottom staff is for Drums (bass clef, 2/4 time). The Hautboy staff includes trills (tr) above the first and fourth measures. The Drum staff features a steady rhythm with triplets (3) in the third and fourth measures. The first system ends with a repeat sign, and the second system concludes with a final double bar line.

There are only the infantry and light cavalry which have marches amongst the troops. The tymbals of the cavalry have no fixed march; the trumpets have only one tone almost uniform, and some flourishes.

**MARTELLEMENT.** A kind of grace in the French singing. When diatonically descending from one note on another by a trill, we enforce the sound of the first note on the second, falling immediately on that second note, by a single turn of the voice, that is called forming a martellement.


**MAXIMUM.** We call the interval maximum, that which is greater than the major of the same kind, and which cannot be marked; for if it could be marked, it would not be called maximum, but superfluous.

The semi-tone maximum forms the difference of the minor semi-tone and the major tone, and its connection is from twenty-five to twenty-seven. There would be between the ut diesis, and the re, a semi-tone of that kind, if all the semi-tones were not rendered equal, or supposed such by the government.

The

The diesis maximum is the difference between the minor tone and semi-tone maximum, in reference from 243 to 250.

Lastly, The comma maximum, or comma of Pythagoras, is the quantity by which is made the difference between the two terms nearest to each other, by the progression of fifth, and by a progression by octaves; that is, the excess of the twelfth fifth si diesis, on the seventh octave ut, and this excess, in the reference of 524288 and 531441, is the difference which the government causes to be null.

MAXIM, Is a note made in a long horizontal square, with a tail on the right side in this manner , which is equal to

eight two-timed measures, viz. two longues, and sometimes three, according to the mode. (Vide Mode.) This kind of note is no longer used, since the measures are separated by bars, and the length or continuities of sounds are marked with ties. (Vide Measure.)

MEASURE, The division of the duration or time into several equal parts, long enough for the ear to catch and subdivide their quantity, and short enough for the idea of the one not to be effaced before the return of the other, and for its equality to be felt.

Each of these equal parts is also called measure; they are subdivided into other aliquots, called times, and which are marked by equal motions of the hand or foot. (Vide To beat Time.) The equal duration of each time or measure is filled by several notes, which pass quicker or slower in proportion to their number, and to which different figures are given to make their different durations. (Vide Power of the Notes.)

Many, considering the progress of our music, imagine the measure to be a new invention, because it was once neglected. But on the contrary, the ancients not only practised the measure, but even gave it rules very severe, and founded on principles which ours know nothing of. In effect, to sing without measure, is not to sing; and the sentiment of the measure, not being less natural than that of the intonation, the invention of these two things could not be made separately.

The measure of the Greeks was confined to their language. It was poetry which gave it to music: the measures of the one answered to the feet of the other. Prose could not have been measured in music. Amongst us, it is quite contrary; the little prosody of our languages causes the power of the notes in our airs to determine the quantity of the syllables: it is on the melody that we are obliged to scan our discourse. We do not even perceive whether what we sing is prose or verse: our poetry having no feet, our vocal music has no measure. The air guides,

and the language obeys. The measure fell into oblivion, tho' the intonation was always cultivated, when, after the victories of the Barbarians the language changed their character, and lost their harmony. It is not surprising, that the metre, which served to express the measure of the poetry, should be neglected in those times, when it was no longer felt, and when verse was sung less than prose.—The people, at that time, knew hardly any other amusement than the ceremonies of the church, no other music than that of their devotions; and, as this music did not require a regularity of rhyme, that part was at length entirely forgotten. Gui marked his music with points, which did not express different quantities; and the invention of notes was certainly since the time of that author.

This invention of different powers of notes is generally attributed to Jean de Muris, about the year 1330. But P. Merfenne denies it with reason; and one must have never read the writings of that canon, to sustain an opinion which they so clearly refute. He not only compares the powers which the notes had before him to those which were given them in his time, and which he does not pretend to be the author of, but he even speaks of the measure, and says that the moderns, that is, his contemporaries, *nunc morosâ multum utuntur mensurâ*, which evidently supposes that the measure, and, consequently, the power of the notes, were known and used before him. Those who would wish to enter a more extensive search where that part of music was in the time of that author, should consult his manuscript treatise, intitled, *Speculum Musicae*, which is in the king of France's library, numero 7207, page 280.

The first who gave the notes any rules of quantity, were more attentive to the powers, or relative durations of these notes, than to the measure itself, or to the character of the movement; so that before the distinction of the different measures, there were notes of, at least, five different powers, viz. The maximum, the *longue*, the *breve*, the *femi-breve*, and *minime*, which may be seen at their articles. What there is of certainty, is, that all these different powers are found, and even more, in the manuscripts of Machault, without finding therein any sign of measure.

In the end, the connection in power of one of those notes to the other, depended on the time, the prolation, and mode. By the mode was determined the connection of the maximum with the *longue*, or of the *longue* with the *breve*; that of the *longue* with the *breve*, or of the *breve* with the *femi-breve*; and by prolation, that of the *breve* with the *femi-breve*, or of the *femi-breve* with the *minor*. (*Vide Mode, Prolation, Time.*) In general, all these different modifications may be connected with  
the

the double or triple measure, that is, with the division of each power into two or three equal times.

This method of expressing the time or measure of the notes changed entirely during the course of the last age. As soon as it was the custom to enclose each measure within two bars, it was absolutely necessary to proscribe all the kinds of notes which enclosed more measures. Its measure became clearer, the partitions better ordered, and the execution easier, which was very necessary to compensate for the difficulties which music acquired in becoming every day more composed. I have seen excellent musicians very much embarrassed to execute in measure the trios of Orlando and Claudin, composers in the time of Henry III. of France.

Till that time the triple had passed as the most perfect; but at length the double took the ascendant, and the six or four-timed measure was taken as the base of all the rest. Moreover, the four-timed measure is always resolved into one of two times, wherefore, it is properly to the double measure that all the rest are connected, at least in regard to the powers of the notes, and signs of the measures.

Instead then of maximums, longues, breves, semi-breves, &c. were substituted minims, crotchets, demi-crotchets, double and triple demi-crotchets, &c. which were all taken in a sub-double division, so that every kind of note was precisely equal to the half of the precedent. A division clearly insufficient, since the triple measure being preserved, as well as the double or quadruple, and every time being divisible, as every measure into a sub-double or sub-triple power, at the will of the composer, it was necessary to assign, or, rather, preserve to the notes, divisions that answered to these two calculations.

The musicians soon found out the error; but, instead of establishing a new division, they endeavoured to supply that by some new invented sign; wherefore, not being able to divide a minim into three equal parts, they were contented with writing three crotchets, adding the cypher three on that of the middle. This cypher itself, at last, appeared too troublesome for them, and to lay a surer net for those who read their music, they have taken the resolution to suppress the three, or even the six; so that to know if the division is double, or triple, we have no other step to take than to count the notes, or guess.

Tho' there are in our music only two kinds of measures, there are so many divisions made, that at least sixteen kinds may be reckoned, whose signs are these.

2 or  $\text{C}$  2 6 6 6 3 3 9 3 9 3 C 12 12 12  
4 4 8 16 3 2 4 4 8 8 10 4 8 16

(Vide the Examples.)

O o 2

Two-Times. 2 wo-four.

1 Of two Times. 2 Of two Times.

3 Six-four. 4 Three-eight.

Of two Times. Of one Time or of three.

5 Six-eaght w

Of two Times

6 Six-sixteen. 7 Three-Times.

Of two Times. Of three Times.

8 Three-two. 9 Nine-four.

Of three Times. Of three Times.

10 Nine-eight.

Of three Times. w

11 Three-four. 12 Three-sixteen.

Of three Time. Of one-Time.

13 Four-Times. 14 Twelve-four.

Of four Time. Of four Time.

15 Twelve-eight.

Of four Times.

16 Twelve-sixteen.

Of four Times.



Of all these measures there are three which are called simple, because they have only a single cypher or sign, viz. the 2 or **E**, the 3, and the C, or four Times. All the rest, which are called double, take their denomination and signs from this last, or from the round note which fills it. This is the rule.

The inferior cypher denotes a number of notes of equal powers, forming together, the duration of a semi-breve, or a four-timed measure. The superior cypher shews how many of those same notes are necessary to fill each measure of the air we are to write.

By this rule, we see that three minims are necessary to fill a measure with the sign  $\frac{2}{3}$ , two crotchets for that with the sign  $\frac{2}{4}$ , three demi-crotchets for that with the sign  $\frac{3}{8}$ , &c. All this confusion of cyphers is ill understood; for why is this connection of so many different measures to that of four times, which is so little like them? or why this connection of so many different notes to a crotchet, whose duration is so little determined? If all these signs are intitled to mark so many different kinds of measures, there are a great deal too many: and if they are to express the different degrees of movements, there are not enough; since, independant of the nature of the measure and division of the times, we are almost always constrained to add a word at the beginning of an air to determine its time.

There are really no more than two kinds of measures in our music, viz. of two and of three equal times; but as each time, as well as each measure, may be divided into two or three equal parts, this makes a sub-division, which gives four kinds of measure in all: We have no more.

We might, however, add a fifth, by combining the two first in a measure of two unequal times; the one composed of two notes, and the other of three. We may find, in this measure, airs very well cadenced, which it would be impossible to mark by an usual measure. I here give an example.

Example

Example of a Measure Sesqui-alter, of two unequal Times.



The Sieur Adolphats made, at Genes, in 1750, an Essay of this Measure, in the grand orchestra, in the air se la forte mi condanna, of his opera d'Ariane. This piece succeeded, and was applauded. In spite of that, I do not find that his example has been followed.

MEDIANT, Is the chord or note which divides into two thirds the intervals of fifth, which is found between the tonic and dominant. The one of these thirds is major, the other  
minor;

minor; and it is their relative position which determines the mode. When the major third is in flat, that is, between the mediant and tonic, the mode is major; when the major third is in sharp, and the minor in flat, the mode is minor. (Vide Mode, Tonic, Dominant.)

**MEDIATION**, A parting of each verse in a psalm into two divisions: the one sung by one side of the band, and the other by the other, in catholic churches.

**MEDIUM**, That situation of the voice which is equally distant from flat and sharp. The higher is more striking, but it is always forced; the bass is grave and majestic, but it is more rough. A pleasing medium, in which we suppose a certain latitude, gives the best formed sounds the most melodious, and strikes the ear much more agreeably. (Vide Sound.)

**MEDLEY**, One of the parts of the ancient melopœa, called agoge by the Greeks, which consisted in interplacing, and properly mixing, the modes and genera. (Vide Melopœa.)

**MELODY**, A succession of sounds, so ordered, according to the laws of rhyme and modulation, that it forms a sensation agreeable to the ear. The vocal melody is called air, the instrumental, symphony.

The idea of rhyme enters necessarily into that of melody, an air is an air no longer than it is measured; the same succession of sounds may receive as many characters, as many different melodies, as it can be differently scann'd; and the smallest change of the power of the notes can disfigure this same succession, so far as to render it dubious. Wherefore the melody is nothing by itself: it is the measure which determines it, and there is no air without its time. We ought not then to compare melody with harmony, an abstraction made from the measure in each; for it is essential to the one, and not to the other.

Melody has reference to two different principles, according to the manner in which we consider it. Taken in the connection of sounds, and by the rules of the mode, it has its principle in harmony; since it is an harmonic analysis which gives the degrees of the gamut, the chords of the mode, and the laws of the modulation, the only elements of singing. According to this principle, the whole force of melody is bounded to the flattering the ear by agreeable sounds, as one flatters the eye by agreeable concords of colours; but when taken as an art of imitation, by which the mind may be affected with different images, the heart moved by different sentiments, the passions excited or calmed, in a word, moral effect be operated, which surpasses the immediate empire of the sense, another principle must be sought for it, for we see no one taken, by which the harmony alone, and whatever comes from it, can affect us thus.

What

What is this second principle? It is in nature as well as the first, but to discover it therein, a more nice observation is necessary, tho' more simple, and a greater sensibility in the observer. This principle is the same which makes the tone of the voice vary when we speak, according to the things we say, and the movements we use in speaking. It is the accent of the language which determines the melody in each nation; it is the accent which makes us speak while singing, and speak with more or less energy, according as the language has more or less accent. That, whose accent is most expressed, should produce a melody more lively and more passionate. That which has little or no accent, can have only a cold and languishing melody, without character or expression. Herein are the true principles: As long as we leave them, and attempt to speak of the power of music on the human heart, we shall speak unintelligibly,—we shall know nothing of what we say.

If music paints only by melody, and receives from thence its whole force, it follows, that every music, which does not sing, however harmonious it may be, is not an imitative music; and not being able either to touch or paint with its beautiful concords, soon fatigues the ear, and always leaves the heart in a state of coldness. It follows also, that in spite of the diversity of parts, which harmony has introduced, and which at present are so much abused, that as soon as two melodies are heard at the same time, they efface each other, and are of no effect, however beautiful each of them may be separately; from whence we may judge with what taste the French composers have introduced in their operas, the use of making an air of accompaniment serve in the place of a chorus; or another air, which is as if they had taken into their heads to make two discourses at the same time, to give a greater force to their eloquence. (Vide Unity of Melody.)

**MELODIOUS**, Whatever produces a melody. Melodious, in general, is said of agreeable sounds, sonorous voices, sweet and pleasing airs, &c.

**MELOPOEA**. This was, in ancient music, the regular use of all the harmonic parts: that is, the art or rules of the composition of an air, the practice and effect of which was called melody.

The ancients had different rules for the method of conducting their airs by conjoint degrees, disjoint, or mixed, in ascending or falling. We find many in Aristoxenes, which all depend on this principle, that in every harmonic system, the third or fourth sound after the fundamental, ought always to strike its fourth or fifth, according as the tetrachords are conjoint; or disjoint, a difference

difference which renders a mode authentic or plagal, at the pleasure of the composer. This collection of all the rules is called *melopœa*.

The *melopœa* is composed of three parts, viz. the *prîse*, *lepsis*, which teaches the musician in what extent of the voice he ought to establish his diapason; the *medley*, *mixis*, according to which he unites or mixes properly the genera, or the modes; and the *use*, *chreses*, which is sub-divided into three other parts. The first, called *euthia*, directs the course of the air, the which is, either direct from flat to sharp, or changed from sharp to flat; or mixt, that is, composed of each. The second, called *agogé*, moves alternatively by disjoint degrees in ascending, and conjoint in descending, or the contrary. The third, called *petteïa*, by which he discerns and picks out the sounds to be rejected, those to be admitted, and those to be used most frequently.

Aristides Quintilian divides the whole *melopœa* into three kinds, which are connected with as many modes, taking this last name in a new sense. The first kind was the *hypatoïdes*, called so from the chord *hypate*, the principal or most bass, because the air, directing only the flat sounds, was not at a distance from that chord, and this air was proper to the tragic mode. The second kind was the *mesoïdes*, from *mese*, the chord of the middle, because the air reigned on the middling sounds, and this answered to the nomic mode, consecrated to Apollo. The third was called *netoïdes*, from *nete*, the last or highest chord: its air was extended only on the sharp sounds, and constituted the *thyrambic* or *bacchic* mode. These modes had others, which were subordinate to them, and varied the *melopœa*; such as the *erotic* or *amorous*, the *comic*, and *encomiac* destined to praises.

All these modes, being proper to excite or calm certain passions, had great influence on the manners, and by a reference to this influence, the *melopœa* was again divided into three genera, viz. the *syftaltic*, or that which inspired tender and affecting passions, the *sorrowful*, and those capable of engaging the heart, according to the sense of the Greek word. Secondly, the *diastaltic*, or that which was proper to express noble sentiments, in exciting joy, courage, magnanimity. Thirdly, the *euchastic*, which was between the other two, and which restored the soul to a state of tranquility. The first kind of *melopœa* was convenient for *amorous poetry*, *sorrows*, *bewailings*, and other similar expressions. The second was suitable for *tragedies*, *warlike airs*, and *heroic subjects*. The third to *hymns*, *praises*, or *instructions*.

**MELOS**, Sweetness of singing. It is difficult to distinguish, in the Greek authors, the sense of the word *melos* from that of melody. Plato, in his *Protagoras*, places the *melos* in simple discourse, and seems to understand by it the tune of the word.

The melos appears to be that by which the melody was rendered agreeable. This word is derived from μέλι, Honey.

MESIS, The name of the sharpest chord of the second tetrachord among the Greeks. (Vide Meson.)

Mese signifies middle, and this name was given to that chord, not, as the Abbé Bropard says, because it is common between the two octaves of the ancient system, for it bore that name before this system had acquired that extent; but because it formed precisely the middle between the two first tetrachords, of which this system was then composed.

MESOIDES, A kind of melopœa, whose airs always were directed on the middle chords, which were also called the mesoides of the mesis, or tetrachord meson.

MESOIDES, Middle sounds, or sounds taken in the medium of the system. (Vide Melopœa.)

MESON, A name given by the Greeks to their second tetrachord, beginning to reckon by flat; and this is also the name by which each of these four chords is distinguished from those which correspond to them in the other tetrachords. So, in that I am speaking of, the first chord was called hypate-meson; the second, parhypate-meson; the third, lichanos-meson, or meson-diatonos; and the fourth, mesis. (Vide System.)

Meson is the genitive plural of mesis, middle, because the tetrachord meson is placed in the middle between the first and third; or rather, because the chord mesis gives its name to the tetrachord, whose sharp extremity is formed.

A general Diagram of the Greek System for the diatonic Genus.			
Modern Names.		Ancient Names.	
Tetrachord Synnemenon.	La	Neté hyperboleon	} Tetrachord hyperboleon.
	Sol	Hyperboleon diatonos	
	Fa	Trite hyperboleon	
	Mi	Neté diezeugmenon —	} Synaphe ou conjuction.
	Re	Diezeugmenon diatonos	
	Ut	Neté synnemenon	} Tetrachord diazeugmenon.
		Synnemenon diatonos	
	Si	Trite synnemenon	
	Si bemol	Paranesis — —	} Diazeuxis ou disjuction.
	La	Trite synnemenon	
	Sol	Mesis — — —	
	Fa	Meson diatonos — —	} Tetrachord meson.
	Mi	Parhypate meson — —	
	Re	Hypate meson — —	} Synaphe ou conjuction.
	Ut	Hypaton diatonos — —	
	Si	Parhypate hypaton — —	} Tetrachord hypaton.
	La	Hypate hypaton — —	
	La	Proilambanomenos	

MESOPYCNI,



**MESOPYCNI**, By this name the ancients called, in the confined genera, the second sound of each tetrachord. The sounds mesopycni were five in number. (Vide Sound, System, Tetrachord.)

**METRIC**, The metric measure, according to Aristides Quintilian, is the part of music, in general, which has, as its object, the letters, syllables, feet, verses, and the poem. And there is this difference between the metric and rhymic, that the first is only used in the form of the verses, and the second in that of the feet which compose them, which can be applied even to the prose. From whence it follows, that the modern languages may even have a metric music, since they have a poesy, but not a rhymic music, because their poesy has no direction by feet. (Vide Rhyme.)

**MI**, The third of the six syllables invented by Gui Aretin, to name the notes when the words are not joined to the music. (Vide E si mi, Gamut.)

**MINIME**, We call interval minime, or lesser, that which is less than the minor of the same kind, and which cannot be marked, for if it could be, it would not be stiled minime, but diminished.

The minime semi-tone is the difference between the semi-tone maximum, and the middle, in reference from 125 to 128. (Vide Semi-tone.)

**MINIME**, In connection with the duration or time, is, in ancient music, the note which at present we call minum. (Vide Power of the Notes.)

**MINIME REST**, A silence equivalent to a crotchet, and which is marked by a bent stroke approaching to the figure of 7, a cypher, but turned in a contrary sense, in this sort, I. (Vide Silence, Notes.)

**MINOR**, A name borne by certain intervals, when they are small enough to be so without becoming false. (Vide Major, Interval.)

Minor is also said of the mode, when the third of the tonic is minor. (Vide Mode.)

**MINUM**, Is the name of a note, which is equal to two crotchets, or the half of a semi-breve. (Vide Notes.)

**MIXIS, MEDLEY**, One of the parts of the ancient melopœa, by which the composer learns to combine properly the intervals, and to distribute the genera and modes according to the character of the air which he has proposed to form. (Vide Melopœa.)

**MIXO-LYDIAN**, The name of one of the modes of ancient music, called otherwise hyper-dorian. (Vide this word.) The mixo-lydian mode was the sharpest of the seven, to which Ptolemy had reduced all those of the Greek music.

This mode is affecting, passionate, suitable to the greater movements, and, by that means, to tragedy itself. Aristoxenes assures us, that Sappho was the inventress of it; but Plutarch says, that some ancient tables attribute it to Pythoclides. He also says, that the Argians punished the first that used it, and who had introduced in music the use of seven chords, that is, a tonic on the seventh chord.

**MIXT**, We call mixt, or connexed modes, in church music, the airs whose extent exceeds their octave, and enters from one mode into another, partaking, by this means, from the authentic and the plagal. This medley is composed of equal modes, as of the first tone with the second; of the third with the fourth; in a word, of the plagal with its authentic, and reciprocally.

**MOBILE**, The two middle chords of each tetrachord were called mobile chords in the Greek music, because they accorded differently according to the genera, with the difference of the two extreme chords, which, never varying, were called stable chords. (Vide Tetrachord, Genus, Sound.)

**MODE**, The regular disposition of an air and its accompaniment, in relation to certain principal sounds, on the which a piece of music is constituted, and which are called the essential chords of the mode.

The mode differs from the tone, in that the former denotes only the chord, or place of the system which ought to serve as a base to the air, and the mode determines the third, and modifies the whole scale on this fundamental sound.

Our modes are not founded on any characteristic sentiment, like those of the ancients, but only on our harmonic system. The chords essential to the mode are three in number, and form together a perfect concord. First, the tonic, which is the fundamental chord of the tone and mode. (Vide Tone and Tonic.) Secondly, the dominant in the fifth of the tonic. (Vide Dominant.) Thirdly, the mediant, which constitutes the mode properly, and which is in the third of the same tonic.

As this third may be of two kinds, there are two different modes. When the mediant forms a major third with the tonic, the mode is major; it is minor when the third is minor.

The major mode is immediately engendered by the resonance of the sonorous body, which renders the major third of the fundamental sound; but the minor mode is not given by nature: it is found only by analogy and variations. This is true in the system of *Mont. Tartini*, as well as in that of *Mont. Rameau*.

This last author, in his different successive works, has explained that origin of the minor mode in different methods, no one of which has contented his interpreter *M. D'Alembert*. For which reason, *D'Alembert* founds that same origin on another principle, which

which I cannot display better than by transcribing the very terms of that great geometrician. “ In the air ut mi fol, which  
 “ constitutes the major mode, the sounds mi and fol are such,  
 “ that the principal sound ut makes them both sound, but the  
 “ second sound mi does not make fol sound, which is only its  
 “ minor third.

“ Moreover, let us suppose, that in the place of this sound mi,  
 “ we place between ut and fol another sound, which has, as well  
 “ as the sound ut, the property of making fol resound, and which,  
 “ however, is different from ut; this sound, which we seek for,  
 “ ought to be such, as to have for major seventeenth the sound  
 “ fol, or one of the octaves of fol; consequently, the sought  
 “ sound should be in the major seventeenth below fol, or, which  
 “ is the same thing, in the major third below the same sound  
 “ fol. Moreover, the sound mi being in minor third below fol,  
 “ and the major third being a semi-tone greater than the minor,  
 “ it follows, that the sound we seek will be a semi-tone lower  
 “ than the mi, and will consequently be mi B flat. This new  
 “ arrangement, ut, mi B flat, fol, in which the sounds ut and  
 “ mi B flat, each make fol resound, without ut making mi B flat  
 “ resound, is not, in reality, as perfect as the first arrangement  
 “ ut, mi, fol; because, in the one, the two sounds mi and fol  
 “ are each engendered by the principal sound ut, whereas, in the  
 “ other, the sound mi B flat is not engendered by the sound ut;  
 “ but this arrangement ut mi B flat fol, is so dictated by na-  
 “ ture, tho’ less immediately than the first, and, in effect, ex-  
 “ perience proves that the ear is but little accommodated to  
 “ it.

“ In the course ut, mi B flat, fol, ut, it is evident, that the  
 “ third of ut to mi B flat is minor, and such is the origin of the  
 “ genus or mode called minor.”

Elements of Music, Page 22.

The mode being once determined, all the sounds of the gamut take a relative or fundamental name, and proper to the place which they hold in that mode. Here are all the names of the notes in relation to their mode, taking the octave of ut as an example of the major mode, and that of la of the minor.

Major

Major	Ut	re	mi	fa	sol	la	si	ut
Minor	La	fi	ut	re	mi	fa	sol	la
	Tonic.	Second Note.	Mediant.	Fourth Note, or Sub-dominant.	Dominant.	Sixth Note, or Sub-dominant.	Seventh Note.	Octave.

We must take notice, that when the seventh note is only in a semi-tone of the octave, that is, when it forms the major third of the dominant, as the si natural in major, or the sol diesis in minor, then that seventh note is called a sensible note, because it expresses the tonic, and makes the tone felt.

Not only each degree takes the name suitable to it, but each interval is determined in relation to the mode. These are the rules established for the purpose: First, The second note ought to form a major second on the tonic, the fourth, and dominant, a just fourth and fifth, and this equally in the two modes.

Secondly, In the major mode, the mediant or third, the sixth and seventh of the tonic ought always to be major: this is the character of the mode. For this same reason, these three intervals ought to be minor in the minor mode; however, as we must perceive therein the sensible note, which cannot be done without a false relation, whilst the sixth note remains minor; this causes exceptions, to which we must pay attention in the course of harmony and singing; but the cleff with its transpositions must always give all the determined intervals by connection with the tonic, according to the nature of the mode: We may find at the word cleff a general rule for it.

As all the natural chords of the octave of ut give, in relation to that tonic, all the intervals prescribed for the major mode, and as it is the same thing with the octave of la for the minor mode, the precedent example, which I have proposed only for the names of the notes, ought to serve also as formula for the rule of intervals in each mode.

This rule is not, as might be believed, established on principles purely arbitrary; it has its foundation in the harmonic generation, at least to a certain point.

If you give the perfect concord major to the tonic, the dominant, and sub-dominant, you will have all the sounds of the diatonic scale for the major mode. To have that of the minor mode, leaving always the major third to the dominant, give the  
minor

minor third to the two other concords. Such is the analogy of the mode.

As this medley of major and minor concords introduces, into the minor mode, a false relation between the sixth note and the sensible, we sometimes give, to avoid this false relation, a major third to the fourth note in ascending, or the minor third to the dominant in descending, particularly by variation; but in that case there are exceptions.

There are properly only two modes, as we have just seen; but as there are twelve fundamental sounds, which give as many tones in the system, and as each of these tones is susceptible of the major and minor modes, we may compose in twenty-four modes or methods. There are even thirty-four possible in the method of marking the notes, but in practice we exclude ten, which, in reality, are only the repetition of ten others, under relations much more difficult, where all the chords would change their names, and wherein we should, with difficulty, know our situation. Such are the major modes on the diesis'd notes, and the minor modes on the B's flat. So, instead of composing in sol diesis major third, you will compose in la B flat, which gives the same touches; and instead of composing in re B flat minor, you will take ut diesis by the same calculation, viz. to avoid on one side an F double diesis, which would become a G natural, and on the other a B double, which would become a natural A. We do not always remain in the tone, or the mode, by which we begin an air, but, whether for expression, or for variety, we change the tone and mode, according to harmonic analogy, returning, however, always to that, which he has made to be first heard, which is called to modulate.

From thence arises a new distinction of the mode in principal and relative: the principal is that by which the piece begins and finishes; the relatives are those which are intermixt with the principal in the course of the modulation. (Vide Modulation.)

The Sieur Blainville, an eminent musician of Paris, proposed, in 1751, the attempt of a third mode, which he calls mixt mode, because it partakes in the modulation of the two others, or is rather composed of them; a medley which the Author does not look upon as inconvenient, but rather as an advantage, and a source of variety, and of liberty in the airs and harmony.

This new mode not being given by the analysis of three concords, as the two others, is not determined, like them, by harmonies essential to the mode, but by an entire gamut, which is suitable to it, as well in ascending as falling; so that in our two modes the gamut is given by the concords, and in the mixt mode, the concords are given by the gamut.

The

The formula of this gamut is in the ascendant and descendant succession of the following notes :

Mi, fa, sol, la, si, ut, re, mi,

whose essential difference, in regard to the melody, is in the position of the two semi-tones ; the first of which is found between the tonic, and the second note ; and the other between the fifth and sixth ; and, in regard to harmony, in that which it bears on the tonic minor third in beginning, and major in finishing, as may be seen.

Gamut and Accompaniment of the mixt Mode of Mr. Blainville.

The musical score is presented in two systems, each containing four staves. The first system includes a treble and bass staff, and a piano and harpsichord staff. The second system includes a treble and bass staff, and a piano and harpsichord staff. The music is in 2/4 time and features various musical notations including notes, rests, and accidentals. The score is titled 'Gamut and Accompaniment of the mixt Mode of Mr. Blainville.'

In



In the accompaniment of this gamut, as well in ascending or falling, as it was given by that author, and executed in the spiritual concert the 30th of May, 1751.

It is objected to the *Sieur de Blainville*, that his mode has neither concord, essential chord, or cadence suitable to it, and which distinguishes sufficiently major or minor. He answers to this, that the difference of his mode is less in harmony than melody, and less in the mode than even in the modulation; that it is distinguished in its beginning from the major mode by its minor third, and in its end from the minor mode by its plagal cadence. To which we answer, that a modulation which is not exclusive is not sufficient to establish a mode, that its own is inevitable in the two other modes, particularly in the minor; and, in regard to its plagal cadence, that it has necessarily a place in the same minor mode every time that we pass from the concord of the tonic to that of the dominant, as that was formerly practised even on the finals in the plagal modes, and in the tone of the fourth. From whence it is concluded, that his mixt mode is less a peculiar kind, than a new denomination with methods for intermixing and combining the major and minor modes, as ancient as harmony, practised in every age: and that appears so true, that even in beginning his gamut, the author neither dares to give the fifth or sixth to his tonic, for fear of determining a tonic in minor mode by the first, or a mediant in major mode by the second. He leaves an equivocation in not filling his concord.

But whatever objection may be made against the mixt mode, whose name is more rejected than its practice, this will not hinder the matter, with which the author establishes and treats it, from making itself known to a man of sense, and a musician well versed in the principles of his art.

The ancients differed greatly on the definitions, divisions, and names of their tones or modes. Obscure in every part of their music, they are almost unintelligible in regard to this. All agree, its true, that a mode is a certain system, or a constitution of sounds; and, it appears, that this constitution is nothing else in itself than a certain octave filled with all the intermediate sounds, according to the genus. Euclid and Ptolomy seem to make it consist in the different positions of the two semi-tones of the octave, in relation to the principal chord of the mode, as we may see still in the eight tones of church-music; but the greatest number appear to place this difference only in the place which the diapason of the mode employs in the general system, that is, inasmuch as the base or principal chord of the mode is sharper or flatter, being taken in different parts of the system; all the chords of the series always preserving a similar connection with

the fundamental, and, consequently, changing the concord at each mode to preserve the analogy of this connection: such is the difference of the tones in our music.

According to the first sense, there would be only seven possible modes in the diatonic system, and, in effect, Ptolomy admits no more; for there are only seven methods to vary the position of two semi-tones in relation to the fundamental sound, preserving between these two semi-tones the prescribed interval. According to the second sense, there would be as many possible modes as sounds, i. e. an infinity; but if we confine ourselves, even in the diatonic system, there will be no more than seven found, unless we chuse to take, as new modes, those which would be established in the octave of the first.

By combining together these two methods, we now want only seven modes; for if these modes are taken in different places of the system, we find, at the same time, the fundamental sounds distinguished from flat to sharp, and the two semi-tones differently situated in relation to the principal sound.

But besides these modes, we may form many others, by taking in the same series, and on the same fundamental sound, different sounds, as the essential chords of the mode: for instance, when we take for dominant the fifth of the principal sound, the mode is authentic; it is plagal if we choose the fourth; and there are properly two different modes on the same fundamental. Moreover, as to constitute an agreeable mode, we must, say the Greeks, render the fourth and fifth just, or, at least, one of the two; it is evident that we have, in the extent of the octave, only five fundamental sounds, on each of which may be established an authentic mode and a plagal. Besides these ten modes, we find other two; the one authentic, which cannot furnish a plagal, because its fourth forms the triton; the other plagal, which cannot furnish an authentic, because its fifth is false. It is, perhaps, in this manner that we must understand a passage of Plutarch, where the music complains that Phrynis has corrupted it by desiring to draw from five, or, rather seven chords, twelve different harmonies. Here then are twelve possible modes in the extent of an octave, or two disjoint tetrachords: if we come to join these two tetrachords together, that is, to give a B flat to the seventh in cutting off the octave; or if we divide the entire tones by chromatic intervals, to introduce therein new intermediate modes, or if, having an attention to the differences only, from flat to sharp, we place other modes to the octave of the preceding; all this will furnish different methods of multiplying the number of the modes far beyond twelve. And those are the only methods of explaining the different numbers of the modes admitted or rejected by the ancients at different times.

The

The ancient music being then confined within the narrow bounds of the tetachord, the pentachord, the hexachord, the eptachord, and the octachord, there were at first only three modes admitted, whose fundamentals were at a tone distance from each other. The flattest of the three was called the dorian, the phrygian was in the middle, and the sharpest was the lydian. In dividing each of these tones into two intervals, place was made to the two other modes, the ionian and æolian, the first of which was inserted between the doric and phrygian, the second between the phrygian and lydian.

In the end, the system being extended to sharp and flat, the musicians established on each side, new modes which took their denomination from the five first, by joining the preposition hyper, upon, for those above, and the proposition hypo, under, for those below. Wherefore the lydian mode was followed by the hyper-dorian, the hyper-ionian, the hyper-phrygian, the hyper-æolian, and the hyper-lydian in ascending; and after the dorian mode came the hypo-lydian, the hypo-æolian, the hypo-phrygian, the hypo-ionian, and the hypo-dorian in descending. We find the numbering of these fifteen modes in Alypius, a Greek author.

## Of all the Modes in the Ancient Music.

N. B. As authors have given different names to a great number of these modes, the names least used are placed in smaller characters.

Sharp.		
15	Si —	Hyper-Lydian.
14	Si B flat	Hyper-Æolian.
13	La —	Hyper-Phrygian. (Hyper-mixo-Lydian.*
12	La B flat	Hyper-Ionian. (Hyper-Iastian. Mixo-Lydian aigu.
11	Sol —	Hyper-Dorian. Mixo-Lydian.
Middle.		
10	Fa Diefis	Lydian.
9	Fa —	Æolian. (Lydian flat.
8	Mi —	Phrygian.
7	Mi B flat	Ionian. (Iastian. Phrygian flat.
6	Re —	Dorian. (Hypo-mixo-Lydian.
Flat.		
5	Ut Diefis	Hypo-Lydian.
4	Ut —	Hypo-Æolian. (Hypo-Lydian flat.
3	Si —	Hypo-Phrygian.
2	Si B flat	Hypo-Ionian. (Hypo-Iastian. Hypo-Phrygian flat.
1	La —	Hypo-Dorian. (Common. Locrian.

\* I have here placed the hyper-mixo-lydian mode, finding it so marked in my manuscripts under the citation of Euclid. But the true place of this mode ought to be, I think, a semi-tone above the hyper-lydian; for which reason Euclid has been deceived, or, that I have erroneously transcribed it.

Their order and their intervals expressed by the names of the notes in our music. But we must take notice, that the hypo-dorian

dorian was the only mode executed in its whole extent; during the time that the rest ascended, the sounds in sharp were cut off, not to exceed the extent of the voice. This observation serves to the intelligence of some passages of the ancients, by which they seem to say, that the flattest modes had a sharper air, which was true, in that these airs were raised more above the tonic. Thro' an ignorance of this, Le Doni has been greatly embarrassed in these apparent contradictions.

Of all these modes, Plato rejected many, as capable of changing the manners. Aristoxenes, in conjunction with Euclid, admitted only thirteen, suppressing the two most raised, viz. the hyper-æolian and hyper-lydian. But in the work which remains to us from Aristoxenes, he named only six, on which he connects the different sentiments, which were permanent in his time. Lastly, Ptolomy reduced the number of these modes to seven, saying, that the modes were not introduced in the design of varying the airs according to flat and sharp, for it is evident that they might have been multiplied much beyond fifteen, but rather for the sake of facilitating the passage of one mode to another, by consonant intervals easy to sound.

He confined all the modes in the space of an octave, of which the doric mode served as a centre, so that the mixo-lydian was a fourth above, and the hypo-dorian was a fourth below; the phrygian a fifth above the hypo-dorian; the hypo-phrygian a fourth below the phrygian; and the lydian a fifth above the hypo-phrygian; from whence it appears, that by reckoning from the hypo-dorian, which is the lowest mode, there was, to the hypo-phrygian, the interval of a tone; from the hypo-phrygian to the hypo-lydian, another tone; from the hypo-lydian to the dorian, a semi-tone; from that to the phrygian, a tone; from the phrygian to the lydian, another tone; and from the lydian to the mixo-lydian, a semi-tone; which forms the extent of a seventh in this order.

7—Sol—Hypo-Dorian.

6—La—Hypo-Phrygian.

5—Si—Hypo-Lydian.

4—Ut—Dorian.

3—Re—Phrygian.

2—Mi—Lydian.

1—Fa—Mixo-Lydian.

R r

Ptolomy

Ptolomy abolished all the other modes, pretending that a greater number could not be placed in the diatonic system of an octave, all the chords which composed it being found employed. Those are the seven modes of Ptolomy, which, by joining the hypo-mixo-lydian, added, they say, by Aretin, form at present the eight tones of church-music. (Vide Tones of the Church.)

This is the clearest notion that can be drawn from the tones or modes of ancient music, whilst they were looked upon as differing only from sharp to flat, but they had still other differences which characterized them more particularly in regard to the expression. They were drawn from the genus of poetry which was set to music, from the nature of the instrument which should accompany it, from the rhyme and cadence therein observed, from the form in which certain airs were placed amongst certain people, and from whence are derived originally the names of the principal modes, the doric, the phrygian, lydian, ionian, and æolian.

There were also other sorts of modes, which might have been better called styles or genera of composition. Such were the tragic mode destined for the theatre; the Nomiach mode consecrated to Apollo; the Dithyrambic to Bacchus, &c. (Vide Style and Melopœa.)

In our ancient music, they called also modes, in reference to the measure or the time, certain methods of fixing the relative powers of all the notes by a general sign: the mode was then nearly what is now called measure; it was marked in the same manner after the cleff, by circles and demi-circles, punctuated or without points, followed by the cyphers 2 or 3 differently combined, to which were added or substituted in the course, different perpendicular lines, according to the mode, in number and in length; and it is from this ancient custom, that the use of the ( and ( barr'd has remained to us. (Vide Prolation.)

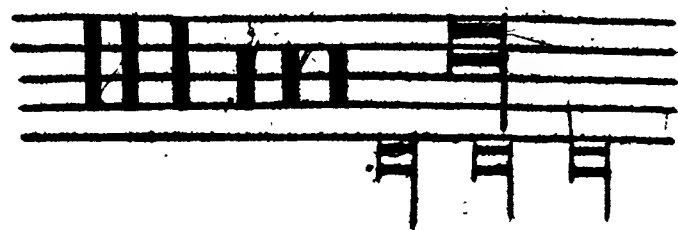
There were, in this sense, two kinds of modes, the major, which was connected to the maximum; and the minor, which was for the longue. Each was divided into perfect and imperfect.

The major perfect mode was marked with three lines, each of which filled three spaces of the staff; and three others, which filled only two. Under this mode the maximum was equal to three longues.

Minor.

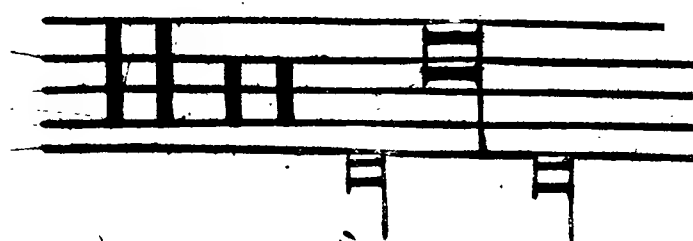


## Major Perfect Mode.



The major imperfect mode was marked by two lines, each of which crossed three spaces, and two others which crossed only two, and in that case the maximum to two longues only.

## Major Imperfect Mode.



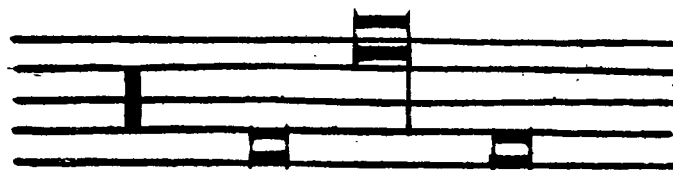
The minor perfect mode was marked by one single line which crossed three spaces, and the longue was equal to three breves.

## Minor Perfect Mode.



The minor imperfect mode was marked by a line which crossed two spaces only, and its longue was equal only to two breves.

## Minor Imperfect Mode.



The Abbe Bropard has improperly mixed the circles and demi-circles with the figures of those modes. Those reunited signs had no place in the simple modes, but only when the measures were double or conjoint.

All this has been long since out of use : but we must necessarily understand these signs to be skilled in decyphering the ancient music, in which the most ingenious musicians are often greatly embarrassed.

**MODERATE.** This word expresses a middle movement between the slow and lively : It answers to the Italian andante. (Vide Andante.)

**MODIFICATION.** An operation by which, thro' means of a trifling alteration in the intervals, making the difference of two neighbouring sounds vanish, they are confounded in one, which, without disgusting the ear, forms the respective intervals of each. By this operation, we simplify the scale in diminishing the number or necessary sounds. Without the modification, instead of twelve sounds only, which the octave contains, there would be more than sixty wanting to modulate in all the tones.

On the organ, the harpsichord, and every other instrument with keys, there neither is, nor can be, an interval perfectly in concord, except the octave only. Its numerical powers are only three major thirds, or four minor thirds, before the making a just octave; the one pass it, and the others do not reach it.

$$\begin{array}{ccccccccccccccc} 5 & 5 & & 5 & 125 & 128 & 2 & 6 & 6 & 6 & 1295 & 12 & 2 \\ \text{For} - & + & - & + & - & = & - & \leftarrow & - & = & - & \& - & + & - & + & - & = & - & - & \rightarrow & - & = & - \\ 4 & 4 & & 4 & 64 & 64 & 1 & 5 & 5 & 5 & 623 & 6-8 & 1. \end{array}$$

Wherefore we are constrained to enforce the major thirds, and to weaken the minor, so that the octaves, and all the other intervals, may correspond exactly, and that the same touches may be used under their different connections. In one moment I will explain the method of managing this.

This necessity was not felt immediately, or discovered before the meliorating of the musical system. Pythagoras, who first found the connection of the harmonic intervals, pretended that these connections were observed in all the mathematical rigour, without allowing any thing to the tolerance of the ear. This severity might be very suitable in its time, when the whole extent of the system was still bounded by so small a number of chords. But as the greatest part of the ancient instruments were composed of chords which were touched a vide, and as, in consequence a chord was necessary for each sound, in proportion as the system extended, they perceived that the rule of Pythagoras, multiplying the chords too much, hindered them from drawing from them their proper uses.

Aristoxenes, the disciple of Aristotle, seeing how much the exactness of calculations hurt the progress of music, and the facility of the execution, took all of a sudden the other extremity, abandoning the calculation almost entirely; he pleaded to the judgment of the ear only, and rejected, as useless, the whole that Pythagoras had established.

This formed in music two sects, which have for some time divided the Greeks, the one of the Aristoxenians, which were the musicians

musicians of practice ; the other, of the Pythagoreans, which were the philosophers. (Vide Aristoxenians and Pythagoreans.)

In the end, Ptolomy and Didymus, finding, with reason, that Pythagoras and Aristoxenes had fallen into two excesses equally faulty, and consulting at the same time sense and reason, laboured each, on their own part, towards a reformation of the ancient diatonic system. But as they were not greatly removed from the principles established for the division of the tetrachord, and, at last, distinguishing the difference between the major and minor tones, they did not dare touch upon the one to divide it, as the other, by a chromatic chord, into two equal parts : the system continued a long time in a state of imperfection, which did not permit us to perceive the true principle of the modification.

Lastly came Gui d'Arezzo, who, in some respects, re-founded the music, and, as they say, invented the harpsichord. Moreover, it is certain, that that instrument could not exist any more than the organ, had not the modification been found out at the same time ; without which, it is impossible to accord them, and impossible, at least, that the first invention can have much preceded the second. This is nearly all that we know of it.

But though the necessity of the modification has been long since known, it is different, in regard to the best rule, to be followed for its determination.

The last age, which was the age of discoveries in every kind, is the first which has given us any clear insight on this head. Le P. Merfenne, and Mons. Loulié, have made calculations ; Mons. Sauveur has found divisions which furnish all possible modifications. Lastly, Mons. Rameau, after all the rest has imagined to have found the true theory of modification first, and has even pretended, on this theory, to establish, as new, a very ancient practice, which I shall speak of instantly.

I have said that it was necessary, for temperating the sounds of the keys, to enforce the major thirds to weaken the minor, and to distribute these alterations so as to render them as little sensible as possible. For this purpose, we must return on the concord of the instrument, and this concord is generally made by fifths : it is therefore by its effect on the fifths, that we should consider the modification.

If we tune very justly four fifths together, as *ut sol re la mi*, we shall find that this fourth fifth *mi*, with the *ut*, from whence we set off, will form a major discordant third ; and much too strong ; and, in effect, this *mi*, produced as the fifth of *la*, is not the same sound which ought to form the major third of *ut*. Herein lies the proof.

The

The connection of the fifth is  $\frac{2}{3}$  or  $\frac{1}{3}$  on account of the octaves 1 and 2 taken indifferently for each other. Wherefore the succession of fifths, forming a triple progression, will give ut 1, sol 3, re 9, la 27, and mi 81.

Let us now consider this mi as major third of ut: its connection is  $\frac{4}{5}$  or  $\frac{1}{5}$ , four being only the double octave of one. If

from octave to octave, we draw near to the mi of the precedent, we shall find mi 5, mi 10, mi 20, mi 40, and mi 80. Wherefore the fifth of la being mi 81, and the major third of ut being mi 80, these two mi's are not the same, and their references are 80

—, which form precisely the major comma.  
81

If we pursue the progression of fifths as far as the twelfth power, which happens at si diesis, we shall find, that this si exceeds the ut, whose unison it ought to make in the connection of 531441 and 524288, a connection which gives the comma of Pythagoras. So that by this calculation, the si diesis ought to exceed the ut of three major comma's; and by the other, it exceeds it only by the comma of Pythagoras.

But the same sound mi which forms the fifth of la, must also serve to form the major third of ut; the same si diesis which forms the twelfth fifth of the same ut, must form the octave also; and lastly, these different concords must concur to constitute the general system without multiplying the chords. This is what is executed by means of the modification.

For this purpose, first, we begin by ut in the middle of the keys, and weaken the four first fifths in ascending, until that the fourth mi forms a major third, absolutely just with the first found ut, which we call the first proof.

Secondly, In continuing to tune by fifths, as soon as we are arrived on the diesis's, we enforce the fifths a little, though the thirds may suffer, and when we are arrived to the sol diesis, we stop. This sol diesis ought to make, with the mi, a just major third, or at least tolerably so; this is the second proof.

Thirdly, We take the ut again, and tune the fifths in flat, viz. fa, si B flat, &c. weak of consequence; then enforcing them by degrees, that is, weakening the sounds till we come to the re B flat, which, taken as ut diesis, ought to be found in concord, and form a fifth with the sol diesis, at which we had before stooped. This is the third proof.

The

The last fifths will be found rather strong, as well as the major thirds, which renders the major thirds of *si* B flat, and *mi* B flat, heavy, and rather rough. But this roughness will be supportable if the partition is well formed; and besides, these thirds, by their situation, are less used than the first, and ought to exist only by choice.

The organists and factors look upon this modification as the most perfect that can be used. In effect, the natural tones enjoy, by this means, all the purity of harmony; and the transposed tones, which form less frequent modulations, offer great assistance to the musician when he is in want of marked expressions; for it is good to observe, says *Monf. Rameau*, that we receive different impressions from the intervals in proportion to their different alterations. For instance, the major third, which naturally excites a joy in us, impresses on us even the ideas of fury, when too strong; and the minor third, which inspires us with tenderness and sweetness, changes our sensations into those of sorrow, when too weak.

Ingenious musicians, continues the same author, know how to make a good use of these different effects of the intervals, and, by the expression which they draw from them, make the alteration flourish, which might be condemned.

But in his harmonic generation, this same *Monf. Rameau* speaks quite another thing. He reproaches himself for his condescension for actual custom, and destroying all that he had before established; he gives a formula of eleven methods proportionate between the two terms of the octave, on which formula he insists on the whole succession of the chromatic system being established, so that this system resulting from the twelve semi-tones perfectly equal, it is of necessity that all the intervals which are formed from it, should be perfectly equal between themselves.

For practice, says he, take whatever key you please; tune then its fifth just, diminish it a very little; proceed in this manner from one fifth to another, always ascending, that is, from sharp to flat, until the last whose sharp sound must have been the flat of the first, you may then be certain that the harpsichord will be quite in tune.

This method which *Monf. Rameau* proposes, had already been proposed, and abolished by the famous *Couperin*. We may find it also at full length in *P. Merfenne*, who names one *Galle* as its author, and who has even taken the trouble to calculate the eleven proportionate methods, of which *Monf. Rameau* gives us the Algebraic formula.

In

In spite of the scientific appearance of this formula, we do not find that the practice which results from it has been yet approved, either by musicians or factors. The first cannot resolve to deprive themselves of the energetic variety which they find in the different affections of the tones which the established modification occasions. Mons. Rameau tells them in vain, that they are deceived, that the variety is found in the unison of the modes, or in the different degrees of the tonics, and not at all in the alteration of the intervals; the musician answers, that the one does not exclude the other; that he does not think himself convinced by an assertion, and that the different affections of the tones are not in any respect proportionate to the different degrees of their finals. For, say they, tho' there is only a semi-tone distance between the final of re and that of mi B flat, as between the final of la and that of si B flat; however, the same music will affect us very differently in A la mi re, than in B fa; and in D sol re, than in E la fa; and the attentive ear of the musician can never be deceived, though even the general tone should be raised or lowered a semi-tone and more: an evident proof that this variety comes elsewhere than simply from the different elevation of the tonic.

In regard to instrument makers, they find, that a harpsichord tuned in this manner, is not really so concordant as Mons. Rameau pretends. The major thirds appear to them rough and disgusting; and when we tell them that they have only to act in the alteration of thirds, as they did before in that of fifths, they answer, that they can't conceive how the organ can be managed to suppress the beatings which are heard therein by this method of tuning, or how the ear can fail to be disgusted.

Since, by the nature of consonances, the fifths may be more changed than the third without disgusting the ear, or causing beatings, is it not necessary to throw the alteration on that side where it is least disgusting, and to leave the intervals, in preference, more just where they cannot be changed without being rendered discordant.

P. Merienne assures us, that, in his time, they said that the first who practised semi-tones on the keys, tuned all the fifths nearly according to the equal concord proposed by Mons. Rameau, but that their ear not being able to endure the discordance of the major thirds, necessarily too strong, they modified the concord by weakening the first fifths to lower the major thirds. It appears, therefore, that to use ones self to this method of concord, is a habit difficult to be followed by an exercised and sensible ear.

As



As to what remains, I cannot be prevented to remind my readers of what I have said at the word consonance, on the cause of that pleasure which the ear receives from consonances, drawn from the simplicity of the connections. The connection of a modified fifth, according to *Monf. Rameau's* method, is this,

$\frac{4}{V\ 80} + \frac{3}{V\ 81}$  This connection, however, pleases the ear. I would know whether its simplicity is the cause of it.

**MODULATION.** This is properly the method of establishing and treating the mode; but this word, at present, is more generally taken for the art of conducting the harmony, and the air successively in several modes, by a method agreeable to the ear, and conformable to rules.

If the mode is produced by harmony, from thence also arise the laws of modulation. These laws may be simply conceived, but are difficult to be observed. Herein lies their consistent rules.

To modulate well in a same tone, we must first go through all its sounds with a fine music, by striking the essential chords oftener, and resting on them longer: that is to say, that the sensible concord, and the concord of the tonic, ought to be shewn therein frequently, but under different appearances, and by different courses, to prevent the monotony. Secondly, To establish Cadences and stops only on these two concords, or, at most, on that of the sub-dominant. Thirdly and lastly, never to alter any of the sounds of the mode; for we cannot, without quitting it, make a *diefis* or a *B flat* be heard, which does not belong to it, or remove any one that does belong to it.

But to pass from one tone to another, we must consult the analogy, and pay attention to the connection of the tonics, and to the quantity of chords common to the two tones.

Let us now depart from the major mode: whether we consider the fifth of the tonic, as having with it the simplest of all the connections after that of the octave, or whether we consider it as the first of the sounds which enter in the resonance of this same tonic, we shall always find that this fifth, which is the dominant of the tone, is the chord on which we may establish the most analogous modulation to that of the principal tone. This dominant, which formed part of the perfect concord of the first tonic, forms also a part of its own, of which it is the fundamental sound. There is then an union between these two concords. Moreover, this same dominant, bearing, as well as the concord, a perfect major concord by the principle of resonance, these two concords differ between themselves only by the dissonance, which, passing from the tonic to the dominant, is the sixth added; and from the dominant, repassing to the tonic, is the seventh

venth. Moreover, these two concords, thus distinguished by the dissonance which suits each, form, by the sounds which compose them, rang'd in order, precisely the octave or diatonic scale, which we call gamut, which determines the tone.

This same gamut of the tonic forms, only changed by a diesis, the gamut of the tone of the dominant, which shews the great analogy of these two tones, and gives the facility of passing from one to the other by means of a single alteration. The tone of the dominant is then the first which is presented after that of the tonic in the order of modulations. The same simplicity of connection which we find between a tonic and its dominant, is also found between the same tonic and its sub-dominant; for the fifth, which the dominant forms in sharp with this tonic, the sub-dominant forms in flat; but this sub-dominant is the fifth of the tonic only by a variation; it is directly fourth by placing this tonic in flat, as it ought to be, which establishes the gradation of the connections: for in this sense, the fourth, whose connection is from three to four, follows the fifth immediately, whose connection is from two to three. If this sub-dominant does not enter, in the same manner, in the concord of the tonic, in return, the tonic enters into its concord. For should ut mi sol be the concord of the tonic, that of the sub-dominant will be fa la ut; wherefore, it is the ut which forms here the union, and the two other sounds of this new concord are precisely the two other sounds of the precedent. Moreover, we must not change more sounds for this tone than for that of the dominant: there are in each all the same chords of the principal tone, very nearly. Give a B flat to the sensible note fi, and all the notes of the tone of ut will serve to that of fa. The tone of the sub-dominant is not then less analogous to the principal tone than that of the dominant.

We ought also to take notice, that after having used this first modulation to pass from a principal tone ut to that of its dominant sol, we are obliged to use the second to return to the principal sound; for if sol is dominant of the tone of ut, ut is sub-dominant to the tone of sol; wherefore, one of these modulations is not less necessary than the other.

The third sound, which enters in the concord of the tonic, is that of its third or mediant, and is also the simplest of the con-

nections after the two precedent  $\begin{matrix} 2 & 3 & 4 \\ \text{---} & \text{---} & \text{---} \end{matrix}$ .

Here then is a new modulation, which is presented, and as much more analogous, as two of the sounds of the principal tonic enter also into the minor concord of its mediant; for the first  
concord

concord being ut mi sol, this will be mi sol si, where we see that mi and sol are common.

But what removes this modulation to a little distance, is the quantity of sounds which must be changed, even for the minor mode, which is most suitable to this mi. I have given before the formula for these two modes; therefore, applying this formula to the minor mode mi, we find, in reality, only the fourth sound fa changed by a diesis in descending; but in rising, we find two others also, viz. the principal tonic ut, and its second note re, which becomes here a sensible note: it is certain, that the alteration of so many sounds, and particularly of the tonic, distances the mode, and weakens the analogy.

If we vary the third as we have the fifth, and take that third below the tonic on the sixth note la, which we ought also to call sub-median, or median below, we shall form on this la a modulation more analogous to the principal tone than was that of mi; for the perfect concord of this sub-median being la ut mi, we find therein, as in that of the median, two of the sounds which enter into the concord of the tonic, viz. ut and mi; and moreover, the scale of this new tone being composed, at least in descending, of the same sounds as that of the principal tone, and having only two sounds changed in ascending, i. e. one less than the scale of the median; it follows thence, that the modulation of the sixth note is preferable to that of this median, inasmuch, as the principal tonic forms therein one of the essential chords of the mode, which is more suitable for connecting the idea of the modulation. The mi may follow afterwards.

Here then are four chords, mi fa sol la, on each of which we may modulate, going out of the major tone of ut. Let the re and si remain the two harmonies of the dominant. This last, as a sensible note, cannot become tonic by any good modulation, at least immediately. This would be applying roughly to the same sound, ideas too much opposed, and giving it an harmony too distant from the principal. For the second note re, we may also, by favour of the consonant direction of the fundamental bass, modulate therein in minor third, provided that we do not remain therein more than an instant, so that we may not have time to forget the modulation of the ut, which itself is changed; otherwise it would be necessary, instead of returning immediately in ut, to pass by other intermediate tones, where it would be dangerous to be led into an error.

By following the same analogies, we shall modulate in the following order to go out of a minor tone: the median first, then the dominant, the sub-dominant, and the sub-median, or sixth note. The mode of each of these accessory tones is determined

by its mediant, taken in the scale of the principal tone. For instance, going out of a major tone ut to modulate on its mediant, we render the mode of this mediant minor, because the dominant sol of the principal tone forms a minor third on this mediant mi. On the contrary, going out of a minor tone la, we modulate on its mediant ut in major mode, because the dominant mi of the tone, from whence we go out, forms a major third on the tonic of that wherein we enter, &c.

These rules, confined in a general formula, are, that the modes of the dominant, and the sub-dominant, are similar to that of the tonic, and that the mediant and sixth note bear the opposed mode. We must take notice, however, that in virtue of the right we have to pass from major to minor, and reciprocally, in a same tone, we may also change the order of the mode from one tone to the other: but in thus removing from the natural modulation, we must be attentive to the return, for this is a general rule, which every piece of music ought to finish in the tone by which it began.

I have collected, in two short examples, all the tones in which we may immediately pass: the first, by going from the major mode; and the other by going from the minor mode. Every note expresses a modulation; and the power of the notes in each example, specifies also the relative duration suitable to each of these modes, according to its connection with the principal tone.

#### Table of all the immediate Modulations.

Going out of the major mode.

Going out of the minor,



These immediate modulations furnish the methods of passing by the same rules, in the most distant rules; and of immediately returning to the principal tone, which we must never lose sight of. But it is not sufficient to know the courses which we ought to follow; we must also know the method of entering on them. Here is the summary of the precepts which may be given in regard to this. In melody, we must, to express the modulation we have chosen, only make the alterations be heard, which it produces in the sounds of the tone from whence we go out, to render them proper to the tone wherein we enter.

Are we in ut major? We have only to sound a fa diesis to express the tone of the dominant, or a si B flat to specify the tone of the sub-dominant. Then pass through the essential chords of the tone wherein you enter: If it is well chosen, your modulation will

will always be good and regular. In the harmony, there is a little more difficulty ; for as the change of the tone must be made at the same time in all the parts, we ought to be careful, in the harmony and air, to avoid following two different modulations at the same time. Huyghens has very well remarked, that the proscription of the two consecutive fifths has this rule as its principle : in effect, we cannot form, in any manner, several just fifths together, between two parts, without modulating in two different tones.

To announce a tone, many persons pretend that it is sufficient to form the perfect concord of the tonic, and that this is indispensable for the giving of the mode ; but it is certain, that the tone cannot be determined but by the concord sensible or dominant : we must then make this concord be heard in beginning the new modulation. The best rule would be, that the seventh or minor dissonance should be always prepared therein, at least, the first time that we make it audible ; but this rule is not practicable in all the permitted modulations ; and provided that the fundamental bass is directed by consonant intervals, that we observe the harmonic union, the analogy of the mode, and avoid the false relations, the modulation is always good. Composers give as another rule, to change the tone only after a perfect cadence, but this rule is useless, and nobody submits to it.

All the possible methods of passing from one tone into another, are reduced to five for the major mode, and four for the minor, which we have announced by a fundamental bass for each modulation.

Major.		Minor.	
Tone of the	{ Dominant — A	Tone of the	{ Mediant — F
	{ Sixth Note — B		{ Dominant — G
	{ Mediant — C		{ Sub-Dominant H
	{ Sub-Dominant D		{ Sixth Note — I
	{ Second Note E		{ Idem — — K

If there is any other modulation which does not come within any of these nine, unless it be enharmonic, that modulation is infallibly bad. (Vide Enharmonic.)

TO MODULATE, is to compose or prelude, whether in writing, or on an instrument, or with the voice, in following the rules of modulation. (Vide Modulation.)

MOLLARE, An epithet, given by Aristoxenes and Ptolomy, to a kind of the diatonic genus, and of the chromatic alto, which I have spoken of at the word Genus.

In modern music, the word Mollare is only used in the composition of the word B mollare or B flat, in opposition to B sharp, formerly called B rough.

Zarlin, however, calls diatonic mollare, a kind of the diatonic genus, which I have spoken of before. (Vide Diatonic.)

**MONOCHORD**, An instrument having only one chord; which is divided *ad libitum* by moveable bridges, the which serves to find the connections of the intervals, and all the divisions of the harmonic canon. As the part of instruments does not appertain to my plan, I shall not extend any farther on this article.

**MONODY**, A song for a single voice, in opposition to what the ancients called chorodies, or music executed by a band.

**MONOLOGUE**, The scene of an opera, wherein the actor is alone, and speaks only to himself. It is in the monologues that all the force of music is discovered, the musician being able to give scope to the whole fire of his genius, without being confined in the length of his pieces by the presence of a second speaker.—These kinds of recitative, which have a place, and cause such an effect in the Italian opera, are only used in monologues.

**MONOTONY**, Is properly a psalmody, or piece of music, which always moves on the same tone; but this word is at present used only in figured music.

**MORES**. A considerable part of the Greek music, called by them *hermosmenon*, which consisted in understanding and choosing the beautiful of every kind, and did not permit them to give to each sentiment, to each object, to each character, all the forms of which it was susceptible: but obliged them to confine themselves to what was suitable to the subject, the occasion, persons, and circumstances. The Mores consisted also in tuning and proportionating in such a manner in a piece, all the parts of the music, the mode, the time, the rhyme, melody, and even the changes, that a certain conformity might be felt throughout the whole, which should leave no disagreement, but render it perfectly one. This single part, the idea of which is not even known in our music, shews to what point of perfection an art might be carried, in which the pleasing, suitable, and agreeable, was reduced to rules.

**MOTET**. This word, in ancient times, signified a very laboured composition, enriched with all the beauties of art, and this within a very short period; from whence, according to some, it takes its name of motet, as if it was one single word.

At present, the name of motet is given to every piece of music made in Latin words, as was customary in the Roman-church, as psalms, hymns, antiennes, &c. and this, in its general sense, is called Latin music.

The French succeeded better in this kind of music than in their own, the language being more favourable; but they make use of too great labour, and, as the Abbé du Bos has accused them, they



they play too much on the words. In general the Latin music has not sufficient gravity for the use to which it is allotted. We ought not to aim therein at imitation, as in theatrical music. Sacred airs ought not to represent the tumult of the human passions, but only the majesty of him to whom they are addressed, and the resignation of soul in those who pronounce them. Whatever may be expressed in the words, every other language in the air is a contrary sense. We should have, I do not say no piety, but no taste, if we preferred the general music to that of the church, for the church itself.

The musicians of the thirteenth and fourteenth age, gave the name of mottelus to that part which is now called counter-tenor. This name, and others as strange, often cause a great embarrassment to those who study the decyphering of ancient manuscripts of music, which was not written in partition as at present.

**MOTIVE.** This word is seldom used but in a technical sense by the composers. It signifies the primitive and principal idea, on which the composer determines his subject and arranges his design. 'Tis the motive which bids him put pen to paper to write such a thing, and not another. In this sense, the principal motive ought to be always present in the mind of the composer, and he ought to manage that it should be so also in that of his audience.

Besides this motive, which is only the principal idea of the piece, there are particular motives, which are the determining ideas of the modulation, the union, the harmonic textures; and on these ideas, which we hasten in the execution, we judge if the author has properly followed his motives, or if he has taken the changes, as it often happens to those who proceed note by note, and who are deficient in knowledge and invention. It is in this acceptation that we say, motive of the fugue, motive of the cadence, motive of the changes in the mode, &c.

**TO MOVE.** This term is used figuratively in music, and is said of the succession of sounds, or concords, which follow each other in a certain order. "The bass and treble move by contrary movements." "To move in counter-time," &c.

**MOVEMENT,** A degree of quickness or slowness, which the character of the piece we execute gives to the measure. Every kind of measure has a movement peculiar to itself, and which is designed in Italian by these words, *Tempo giusto*. But besides this, there are five principal modifications of movement, which, in the order from slow to quick, are expressed by the words, *Largo*, *adagio*, *andante*, *allegro*, *presto*; and these words in English are rendered, by slow, moderate, pleasing, gay, quick. We must, however, take notice, that, the movement always having much

less precision in the French music, the words that express it have a sense much more vague than in the Italian.

Each of these degrees is sub-divided and modified into others also, in which we must distinguish those which express the degree only of quickness or slowness, as *largo*, *andantino*, *allegretto*, *prestissimo*, and those, moreover, which mark the character and expression of the air, as *agitato*, *vivace*, *gusto*, *combrio*, &c. The first may be rendered by all the musicians, but there are only those which have sentiment and taste, who feel and render the others.

Tho', in general, slow movements are suitable to sorrowful passions, and animated movements to the gay, there are, however, often modifications by which a passion speaks on the tone of another. It is true, that gayety cannot be expressed with slowness, but often the most lively griefs have the most unbounded language.

**MOVEMENT**, Is also the course or progress of sounds from flat to sharp, or from sharp to flat: wherefore, when we say that we must, as much as possible, make the bass and treble move by contrary movements, this signifies that one of the parts ought to ascend, whilst the other descends. Some call oblique movement, that wherein one of the parts remains in its place, whilst the other ascends or descends.

The ingenious Jérôme Mei, in imitation of Aristoxenes, distinguishes in general, in the human voice, two kinds of movements, viz. that of the speaking voice, which he calls continued movement, and which is not fixed till the moment we are silent; and that of the singing voice, which moves by determined intervals, and which he calls diastematic, or intervallative movement.

**MUSETTE**, A kind of air suitable to the instrument of this name, whose measure is two or three times, the character sweet and original, the movement a little slow, bearing generally a bass in the line or point of the organ, such as may make it a musette, and which is so called on account of this bass. On these airs we form the dances of a suitable character, and which also have the name of musettes.

**MUSICIAN**. This name is given equally to him who composes music, and him who executes it. The first is also called composer. (Vide that word.)

The ancient musicians were poets, philosophers, and orators of the highest order. Such were Orpheus, Terpander, Sterichorus, &c. Boetius also will not honour with the name of musician, him, who only practices the music by the servile use of fingers and voice, but him who possesses that knowledge by reason and speculation. And it moreover seems, that to raise one's self to the lofty expressions of oratorical and imitative music, we must have

have made the human passions, and the language of nature, our particular study. The musicians, however, of our time, confined in general to the practice of notes, and some turns in the air, cannot be highly offended, I imagine, if they are not esteemed as great philosophers.

**MUSIC**, The art of combining the sounds in a manner pleasing to the ear. This art becomes a science, and even very profound, when we attempt to find the principles of these combinations, and the causes of the pleasure which they inspire us with. Aristides Quintilian defines music as the art of the beautiful, and pleasing in the voices and movement. It is not strange, that with definitions so vague and general, the ancients have given a prodigious extent to the art which they thus defined.

We generally suppose, that the word music is derived from *musa*, because we believe that the muses have invented this art; but Kircher, after Diodorus, derives this word from an *Ægyptian* name, pretending, that it was in *Ægypt* that the music began first to establish itself after the deluge, and that the first idea of the sound was received by the reeds which grew on the banks of the Nile, when the wind blew in the hollow of their pipes. Whatever may be the etymology of this word, the origin of the art is certainly more applicable to mankind; and if the words did not begin with the air, it is at least certain, that wherever we speak, we sing.

Music is naturally divided into theoretic or speculative, and practical.

Speculative music is, if I may be allowed the expression, the knowledge of musical matter, that is, the different connections from flat to sharp, quick to slow, sour to sweet, strong to weak, of which the sounds are susceptible; connections, which comprehending all possible combinations of the music and sounds, seem to comprehend also all the causes of the impressions which their succession may form on the ear and the soul.

Practical music is the art of applying and making use of the principles of the speculative; that is, to conduct and dispose the sounds in connection with the consonance, in duration, succession, in such a manner, as that the whole may produce on the ear the proposed effect. It is this art which is called composition. (*Vide* this word.) In regard to the actual production of the sounds by voices or instruments, which is called execution, it is the part purely mechanic and operative, which, only supposing the faculty of founding the intervals just, of marking the durations true, to give to the sounds the degree prescribed in the tone, and the powers prescribed in the time, requires rigorously no other knowledge than that of the characters of music, and custom in expressing them.

Speculative

Speculative music is divided into two parts, viz. the knowledge of the connection of the sounds, or their intervals, and that of their relative durations, that is, of the measure and time.

The first, is properly that which the ancients called harmonic music; it teaches in what consists the nature of the air, and marks what is consonant, dissonant, agreeable, or displeasing to the ear. In a word, it gives a knowledge of the different methods with which the sounds affect the ear by their tone, their force, their intervals, which is equally applied to their concord, and their succession.

The second has been called rhymic, because it treats the sounds in regard to the time and quantity. It contains the explanation of the rhyme and metre, long measures and short, lively and slow, the times and different parts into which they are divided, to apply to them the succession of the sounds.

The practical music is divided also into two parts, which answer to the two preceding.

That which answers to the harmonic music, and which the ancients called *melopœa*, contains the rules for combining and varying the consonant and dissonant intervals, in an agreeable and harmonious manner. (*Vide Melopœa.*)

The second, which answers to the rhymic music, and which they call *rythmopœa*, contains the rules for the application of the times, feet, measures, in a word, for the practice of rhyme, (*Vide Rhyme.*)

Perphyrius gives another division of music, whilst it has for its object the mute and sonorous movement; and, without distinguishing it into speculative and practical, there are found in it the six following parts: the rhymic, for the movements of dancing; the metric, for the cadence and number of verses; the organic, for the practice of instruments; the poetic, for the tones and accent of poetry; the hypocritic, for the attitudes of pantomimes; and the harmonic, for the air.

The music is divided, at present, more simply into melody and harmony; for the rhymic is no longer regarded amongst us, and the metric is very trifling, since our verses, in airs, take nearly their measure from music, and lose the little which they receive from it by themselves.

By melody, we direct the succession of the sounds, so as to produce an agreeable air. (*Vide Melody, Air, Modulation.*)

Harmony consists in uniting to each of the sounds, in a regular succession, two or more other sounds, which, striking the ear at the same time, flatter it by their concurrence. (*Vide Harmony.*)

We might, and, perhaps, ought to divide the music into natural and imitative. The first, confined to the physic of the sounds only, and acting on the sense only, cannot carry its impressions

to the heart, and gives sensations only more or less agreeable. Such is the music of the songs, hymns, cantics, and of all the airs, which are only combinations of melodious sounds, and all music in general which is not harmonious.

The second, by inflexions lively and accented, and, as it were, speaking, expresses all the passions, paints every picture, renders every object, submits the whole of nature to its ingenious imitations, and, by this means, conveys to the soul of the man those sentiments proper for moving it. This truly lyric and theatrical music was that of ancient poems, and it is that which at present we apply to the drama's, executed in music on our theatres. It is only in this music, and not in the harmonic or natural, that we must seek the cause of the prodigious effects which it formerly produced. How much soever we may seek for moral effects in the physic of sounds only, we shall never find them, and our reasoning will be without understanding.

The ancient writers differ greatly on the nature, the object, extent, and the parts of music. In general, they gave this word much more extensive than that which remains to it at present. They not only comprehended, under the name of music, as we have seen, the dance, gesture, and poetry, but even the collection of all the sciences. Hermes defines music as the knowledge of the order in every thing. This was also the doctrine in the school of Pythagoras, and that of Plato, who taught, that every thing in the universe was music. According to Hesychius, the Athenians gave the name of music to all the arts; and all this is no longer astonishing, since, that a modern musician has found in music the principal of all references, and the foundation of every science. From thence are all those sublime pieces of music, which the philosophers have handed down to us, divine music, music of mankind, celestial music, terrestrial, active, contemplative, enunciative, intellective, oratorical, &c.

It is under these vast ideas that we must understand several passages of the ancients on music, which would be unintelligible in the sense which we at present give to this word.

It appears that music has been one of the first arts; we find it mixt among the most ancient monuments of human kind. It is also very probable, that the vocal music was found before the instrumental, if among the ancients there ever was a music truly instrumental; i. e. formed for instruments entirely. Not only mankind, before discovering any instrument, must have made observations on the different tones of their voice, but they must have learned very early, by the natural concert of birds, to modify their voice and throat in an agreeable and melodious manner. After this, the wind instruments must have been the first invented. Diodorus, and other authors, attribute the invention

to an observation of the blowing of the wind in reeds or other hollow plants. This is also a sentiment of Lucretius.

At liquidas avium voces imitauer ore  
 Antè fuit multò, quam levia Carmina cantu  
 Concelebrent homines possint, aureisque juvari ;  
 Et Zephyri cava per calamorum fibila primum  
 Agresteis docuere cava inflare cicutas.

In regard to other kinds of instruments, the sonorous chords are so common, that mankind must have early observed the different tones which have given birth to the different chord instruments. (Vide Chord.)

Those instruments which are struck to draw a sound from them, as drums and tymbals, owe their origin to the deafening noise which hollow bodies emit when struck.

It is difficult to leave these generalities to fix on some certainty on the invention of music reduced into an art. Without ascending to times before the flood, several of the ancients attribute this invention to Mercury, as well as that of the lyre. Others fix on Cadmus as the introducer of it among the Greeks, who, flying from the court of the king of Phœnicia, carried with him into Greece, the musician, Hermione, or Harmony ; from whence it would follow, that this art was known in Phœnicia before Cadmus. In a part of Plutarch's Dialogue on Music, Lyfias names Amphion as the inventor ; in another, Soterichus says it was Apollo ; and in a third, he seems to give the honour to Olympus : there is no agreement on this matter, and, it must be confessed, it is of little consequence. To these first inventors succeeded Chiron, Demodocus, Hermes, Orpheus, who, in the opinion of some, invented the lyre.

After those, came Phæmius, then Terpander, contemporary of Lycurgus, and who laid down the rules of music. Some attribute to him the invention of the first modes. Lastly, we add Thales and Thamiris, who is said to have been the inventor of musical instruments. These great musicians lived most of them before Homer. Others, more modern, are Lasus of Hermione, Melnippes, Philoxenes, Timotheus, Phrynnis, Epigonius, Lyfander, Simmicus, and Diodorus, who all have considerably improved the music.

Lasus is, as it is reported, the first who has written on this art, in the time of Darius Hyftaspes. Epigonius invented the instrument of forty chords, which bore his name. Simmicus invented also an instrument of thirty-five chords, called Simicium.

Diodorus improved the flute, and added new holes to it ; and Timotheus the lyre, by adding a new chord to it, which was the occasion of his suffering a fine by the Lacædemonians.

As



As the ancient authors express themselves very obscurely on the inventors of musical instruments, they are also very unintelligible on the instruments themselves. Hardly do we know any thing more of them than their names. (Vide Instrument.)

Music was in its greatest esteem among the different people of antiquity, and particularly among the Greeks; and this esteem was proportionate to the power and surprising effects which they attributed to this art. Their authors do not think they have given us a too great idea of it, when they told us it was used in heaven; and that it formed the chief amusement of the gods and souls of the blessed. Plato does not hesitate to say, that there can be no change in music, but there must be one also in the constitution of the state; and he pretends, that sounds may be assigned capable of raising the ideas of a base soul, insolence, &c. with all their contrary virtues. Aristotle, who seems to have written his political works only to oppose his sentiments to those of Plato, is, however, in concord with him in regard to the power of music over the manners. The judicious Polybius tells us, that music was necessary to sweeten the manners of the Arcadians, who dwelt in a country where the air was cold and wintry; that those of Cynetes who neglected music, surpassed all the Greeks in cruelty, and that there was no country which was equal to it in crimes. Athenæus assures us, that in former times, all laws, human and divine, exhortations to virtue, the knowledge of what concerned the gods and heroes, the lives and actions of illustrious men, were written in verse, and sung publicly in choirs by the sound of instruments; and we see, by sacred writings, that such were the customs of the Israelites from the earliest times. There had been no method found more efficacious to engrave, on the minds of men, the principles of morality and love of virtue; or, rather, all this was not the effect of a premeditated design, but of the grandeur in its sentiments, and the elevation of the ideas which sought, by proportioned accents, to form to themselves a language worthy of them.

Music formed a part of the study of the ancient Pythagoreans. They used it to excite the soul to laudable actions, and to inflame each other with the love of virtue. According to the philosophers, our souls were formed of nothing but harmony; and they expected to re-establish, by the means of sensual harmony, the intellectual and primitive one of the faculties of the soul; that is to say, that which, according to them, existed in it before it animated our bodies, and whilst it dwelt in heaven.

Music is at present sunk from that degree of power and majesty, so far as to make us doubt of the truth of those wonders which it formerly performed, tho' attested by the most judicious

historians, and gravest philosophers of antiquity. However, in modern history, we may find some similar facts. If Timotheus excited the fury of Alexander by the phrygian mode, and calmed it by the lydian, a music, still more moderate, has surpassed it, by exciting, they say, in Erric, king of Denmark, such a fury, that he kill'd his most faithful servants. Doubtless these wretches were less sensible of music than their prince, otherwise he might have run half the danger. D'Aubigny recounts another history quite similar to that of Timotheus. He tells us, that in the reign of Henry III. the musician Claudin, playing at the marriage of the Duc de Joyeuse, in the phrygian mode, animated, not the king, but a courtier, who so far forgot himself as to draw his sword in the presence of his sovereign; but the musician quickly calmed him by taking the hypo-phrygian mode. This is said with as much assurance, as if the musician Claudin knew in what consisted the phrygian and hypo-phrygian modes.

If our music has little power over the affections of the soul, in return, it is capable of acting physically on the body, as in the history of the Tarantula, too well known to want mentioning here: as a proof of which, I bring the Chevalier Gascon which Boyle mentions, who, at the sound of a cornemuse, or bag-pipe, could not contain his urine; to which should be added, what the same author recounts of some women, who burst into tears at the hearing of a certain tone, with which the rest of the audience were not at all affected; and I know a woman of fashion at Paris, who cannot listen to any kind of music whatsoever, without being seized with an involuntary and convulsive laughter. We read also in the history of the Academy of Sciences, at Paris, that a musician was cured of a violent fever, by a concert performed in his chamber.

Sounds act even on inanimated bodies, as we may see by the shaking and resonance of a sonorous body at the sound of another, with which it is connected in some respect. Morhoff mentions a certain Peter, a Dutchman, who broke a glass by the sound of a voice. Kirtcher speaks of a large stone, which trembled at the sound of a certain pipe in an organ. P. Merfenne speaks also of a kind of waggon, which the playing of the organ shook as though it had been an earthquake.

Boyle adds, that the *Stalls* often shake at the sound of the organ, and that he has himself felt them tremble under his hand at the sound of the organ or the voice, and that he has been assured, that those which were well formed, trembled all at some determined tone. The whole world have heard mention of the famous pillar at the church in Rheims, which sensibly shakes at the sound of a certain bell, whilst the other pillars continue immoveable;

moveable : but that which transmits the honour of the marvellous to the sound, is, that this same pillar equally shakes when the clapper of the bell is removed.

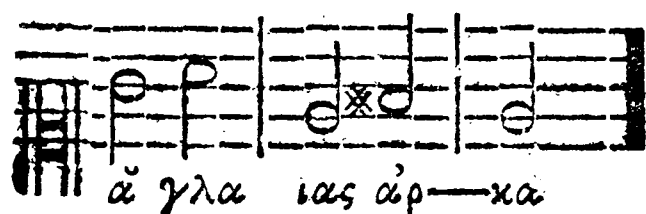
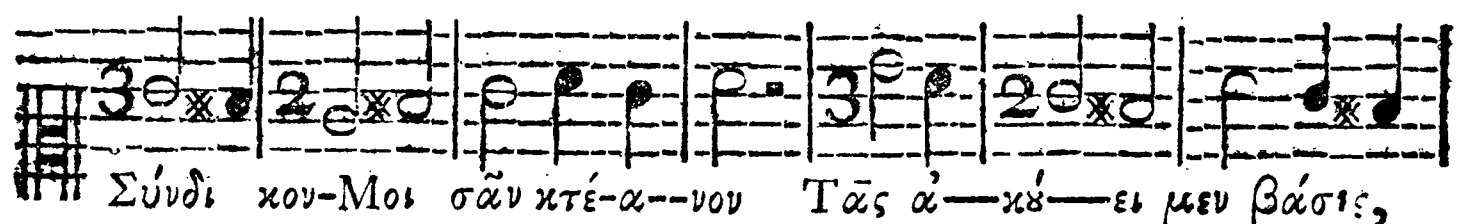
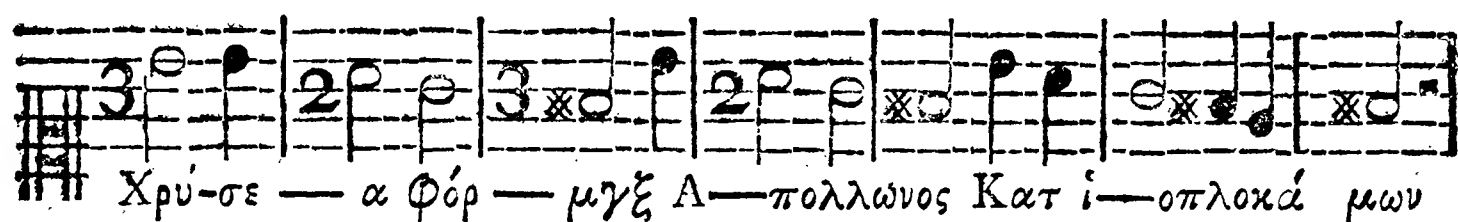
All these examples, the greatest part of which belong rather to the sound than to the music, and of which physic may give some explanation, neither makes them more credible or intelligible to us, tho' the ancients held them in music as marvellous and almost divine. Many authors have puzzled their brains to endeavour to give a cause for them. Wallis attributes them partly to the novelty of art, and partly rejects them on the exaggeration of authors.

Others imagine that the Greeks, more sensible than ourselves, by the constitution of their climate, or by their method of living, might be mov'd by things which could make no impression on us. Mons. Burette, even in adopting all these facts, pretends, that they do not prove the perfection of the music which produced them : he sees nothing in it, but what the sad scrapers of a country village might have done, in his opinion, quite as well as the first musicians of the world.

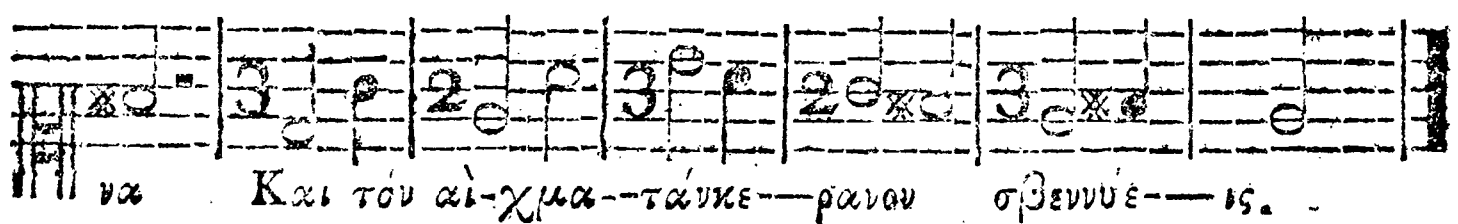
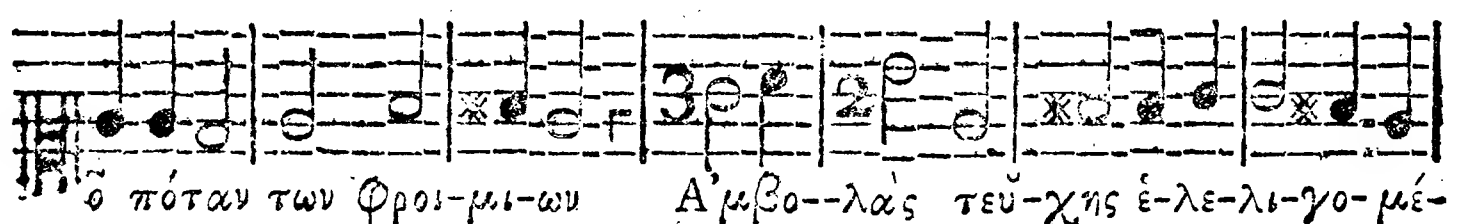
The generality of these sentiments are founded on the persuasion we are in of the excellence of our music, and the contempt we have for that of the ancients. But is this contempt as justly founded as we pretend ? This has been several times examined ; and when we consider the obscurity of the matter, and the insufficiency of judges, has great need of undergoing a better search. Of all those who have yet employed themselves in this examination, Vossius, in his *Treatise de Viribus Cantûs & Rhythmi*, appears to have best discussed the question, and draws the nearest to truth. I have thrown some ideas thereon in a writing not yet made public, where my thoughts will be more suitably placed than in this work, which is not intended to stop the reader for the discussion of my opinion,

It has been much wished to see some fragments of ancient music. P. Kircher and Mons. Burette have laboured thereon to satisfy the curiosity of the public. To give them a greater chance of profiting by their labours, I have transcribed here two pieces of Greek music, turn'd into modern notes by those authors.

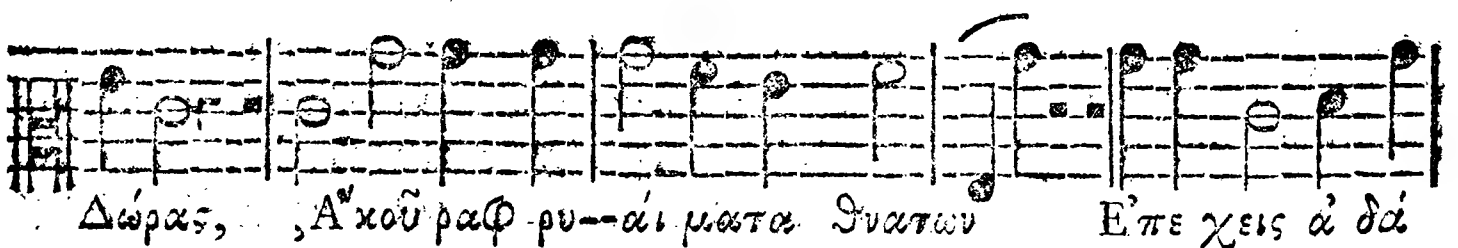
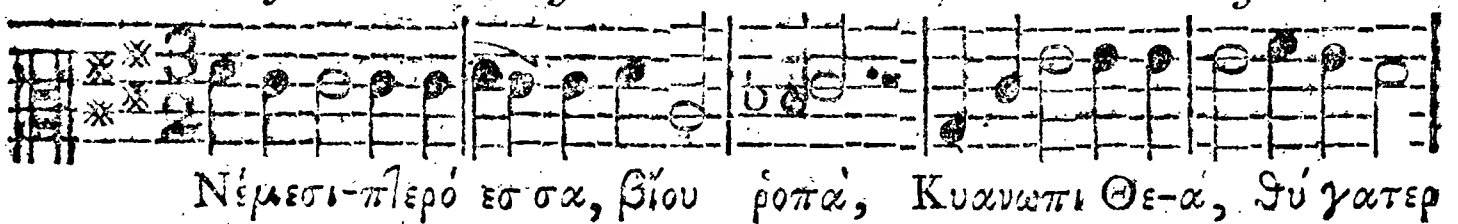
*An Ode of Pindar. A Piece of ancient Music.*



*The Chorus which follows is sung with sound of the Harp.*



*An Hymn to Nemesis 2d. a Piece of ancient Music.*



But who can dare to judge of ancient music by such examples? I imagine them to be faithful. I even wish that those who would judge of it, could sufficiently know the genius and accent of the Greek,

Greek, that they would reflect, that an Italian is judged incapable of a French air ; that a Frenchman knows nothing of the Italian melody : when he has compared time and place, then let him speak if he dare.

To put the reader in a way to judge of the different musical accents of different people, I have transcribed also a Chinese air, drawn from P. du Halde.

### A Chinese Air.



### A Persian Air, taken from the Chevalier Chardin.



### Translation of the Persian Words.

Your countenance is vermilion, like the flowers of Granada ;  
Your words a perfume, from which I am inseparable.

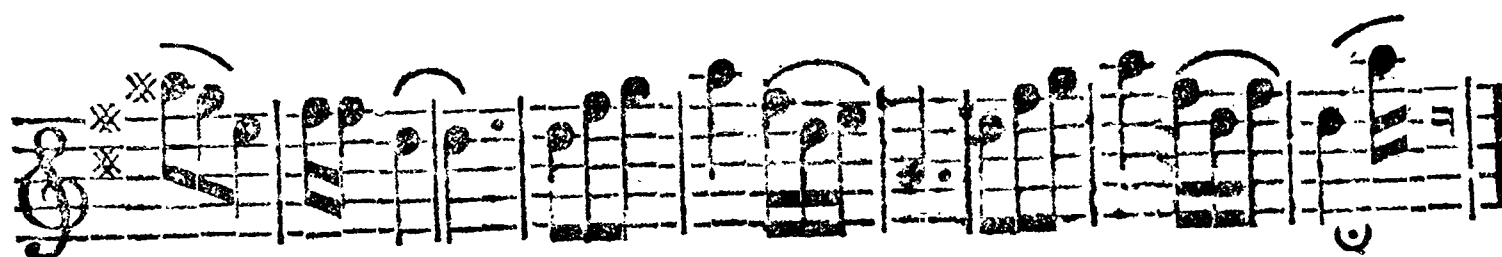
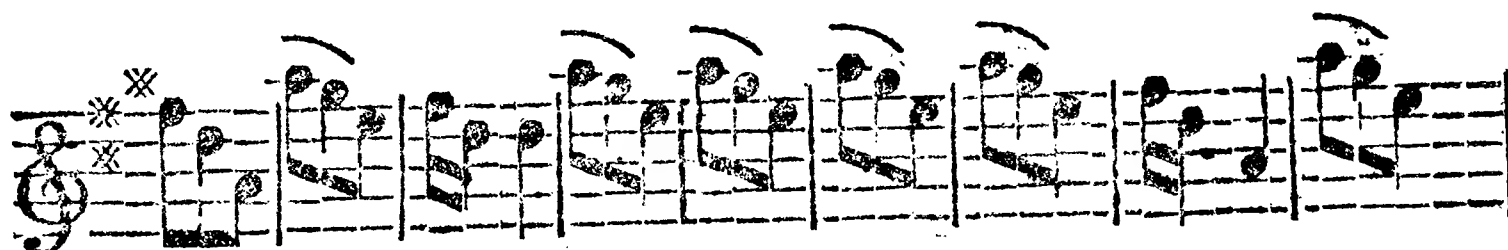
The world has nothing fix'd : Every thing changes.  
Bring odorous flowers to animate the heart of my monarch.

## Song of the Savages in Canada, drawn from P. Merfenne.



We shall find in these pieces a conformity of modulation with our music, which must make one admire the excellence and universality of our rules, and may render the understanding or fidelity of those who have transmitted to us those airs, somewhat suspicious to others.

## The Ranz des Vaches.



The above celebrated Air, called Ranz des Vaches, was so generally beloved among the Swiss, that it was forbidden to be play'd in their troops under pain of death, because it made their  
burst



burst into tears, desert, or die, whoever heard it; so great a desire did it excite in them of returning to their country. We shall seek in vain to find in this air any energetic accents capable of producing such astonishing effects. These effects, which are void in regard to strangers, come alone from custom, reflections, and a thousand circumstances, which, retrac'd by those who hear them, and recalling the idea of their country, their former pleasures, their youth, and all their joys of life, excite in them a bitter sorrow for the loss of them. The music does not in this case act precisely as music, but as a memorative sign. This air, tho' it continues the same, does not produce, at present, the same effects which it produc'd before amongst the Swiss; because, having lost the taste for their ancient simplicity, they no longer regret it, but when reminded. So true it is, that it is not in their physical action, we should seek for the greatest effects of sounds on the human heart.

The method, by which the ancients prick'd their notes, was established on a very simple foundation, which was the connection of cyphers; i. e. by the letters of their alphabet; but instead of confining themselves on this idea to a small number of characters easy to retain, they were lost in multitudes of different signs, with which they confused their music in return, so that they had as many methods of marking as genera and modes. Boetius took from the Latin alphabet characters corresponding to those of the Greek. Pope Gregory perfected this method. In 1024, Gui d'Arezzo, benedictine, introduced the use of stave, (vide Stave) on lines, on which he marked the notes in form of points, (vide Notes) expressing, by their position, the elevation or the lowering of the voice. Kircher, however, pretends, that this invention was prior to Gui, and, in effect, I have not seen in the writings of this monk, that he claims it to himself; but he invented the gamut, and applied to the notes of his hexachord, names drawn from the hymn of St. John Baptist, which they preserve at present. This man, lastly, born for music, invented different instruments, called polyplectra, such as the harpsichord, spinnet, viol, &c. &c.

The characters of music, have, according to the general opinion, received their last considerable augmentation in 1330, at the time, they say, when Jean de Muris, call'd improperly by some Jean de Mæurs, or de Muria, doctor of Paris, tho' Gesner makes him an Englishman, invented the different figures of the notes which express the duration or the quantity, and which we now call semi-breves, minims, crotchets, &c. But this sentiment, tho' very common, appears to me rather dubious, to judge of it by his Treatise of Music, intitled *Speculum Musicae*, which I

have had the boldness to read almost all through, to constitute therein the invention attributed to this author. As to the remainder, this great musician has had, like the king of poets, the honour to be claimed by different people; for the Italians also pretend he is of their nation, perhaps deceived by a fraud or error of Bontempi, who calls him Penigino instead of Panigino.

Lafus is, or seems to be, as I have said before, the first who has written on music; but his works are lost, as well as several other books of the Greeks and Romans on the same subject. Aristoxenes, the disciple of Aristotle, and chief of the musical sect, is the most ancient author who remains to us in that science. After him comes Euclid of Alexandria. Aristides Quintilian wrote after Cicero. Alypius comes next; then Gaudencius, Nicomachus, and Bacchius.

Marc Meibomius has given us a beautiful edition of these seven Greek authors, with a Latin translation and notes.

Plutarch has written a Dialogue on Music. Ptolomy, a celebrated mathematician, wrote, in Greek, the Principles of Harmony, about the time of the emperor Antoninus. This author preserves a medium between the Pythagoreans and Aristoxeneans. A long time after, Manuel Bryennius wrote also on the same subject. Amongst the Latins, Boetius has written in the time of Theodoric; and not far from the same time, Martianus, Cassiodorus, and Saint Augustine.

The moderns are many in number. The most known are Zarlin, Salerius, Valgulio, Galilée, Mei, Doni, Kircher, Mersenne, Parran, Perrault, Wallis, Descartes, Holder, Mengoli, Malcolm, Burette, Valloti: lastly, Mons. Tartini, whose book is full of profundity, genius, tautology, and obscurity; and Mons. Rameau, whose writings have this singularity, that they have gain'd him a great fortune without having ever been read by any one. This lecture is besides become absolutely superfluous, since, that M. d'Alembert has taken the trouble of explaining to the public the system of the fundamental bass, the only thing useful and intelligible which can be met with in the writings of this musician.

**MUSIC MASTER.** A musician hir'd to compose and execute music. It is the music-master who beats time, and directs the musicians. He should be skill'd in composition, tho' he does not always compose the music which he makes others execute. In the opera-house of Paris, for instance, the employment of beating time is a particular office; whereas, the music of the opera is composed by whomsoever has talent and will. In Italy, he who has composed an opera directs always its execution, not in beating time, but with the harpsichord. Wherefore, the office of  
music-master

music-master has no foundation but in churches : for which reason, we do not say in Italy *Music-Master*, but *Master of the Chapel*, a denomination which begins to be used at present in France.

**MUTATIONS.** By this term were call'd, in ancient music, generally, all the passages of an order, or subject of one air to another.

Aristoxenes defines the mutation as a kind of passion in the order of melody ; Bacchius, as a change in the subject, or the transposition of a like into an unlike place ; Aristides Quintilian, as a variation in the proposed system, and the character of the voice ; Martianus Capella, as a transition of the voice in another order of sounds.

All these definitions, obscure and too general, have need of being cleared by divisions, but authors do not agree better on these divisions than on the definition itself. However, we just gather, that all these mutations may be reduced to five principal kinds.

First, A mutation in the genus, when the air pass'd, for instance, from diatonic to chromatic, or to the enharmonic, and reciprocally.

Secondly, In the system, when the modulation united two disjoint tetrachords, or separated from them two conjoint, which answers to the passage of the B sharp to B flat, and reciprocally.

Thirdly, In the mode, when, for instance, we pass from the doric to the phrygian or lydian, and reciprocally, &c.

Fourthly, In the rhyme, when we pass'd from quick to slow, or from one measure to another.

Fifthly and lastly, in the melopœa, when we interrupted a heavy, serious, magnificent air, by a lively, gay, and quick change, &c.

## N.

**NATURAL.** This word has several senses in music. First, Natural music is that which the human voice forms by opposition, to the artificial music which is executed with instruments. Secondly, We say that an air is natural when it is easy, sweet, pleasing ; that a harmony is natural, when it has few variations or dissonances, that it is produced by chords essential and natural to the mode. Thirdly, Natural is also said of every  
Y y
piece

piece of music which is neither forced or obscure, which neither goes too high or too low, neither too quick or too slow. Fourthly and lastly, The most common signification, and the only one which the Abbe Bropard has not mentioned, is applied to the tones or modes, from whence the sounds are drawn in the ordinary gamut without any alteration, so that a natural mode is that in which neither diesis or B flat is used. In the exact sense, there could be only one natural tone, which would be that of ut, or C major third; but we extend the naturals to all the tones, whose essential chords, bearing neither diesis's or B's flat, permit that we should number the cleff neither with one or the other: such are the major modes of G and F, the minor modes of A and D, &c. (Vide Transposed Cleffs, Modes, &c.)

The Italians always mark their recitative to the natural, the changes of tone being so frequent therein, and the modulations so confined, that, whatever way we number the cleff for a mode, we could not spare either diesis's or B's flat for the rest, and we should throw ourselves, in the end of the modulation, in very embarrassing confusions of signs, when the notes changed in the cleff, by a sign, are found changed by the contrary sign accidentally.

To sol fa in natural, is to sol fa by the natural. (Vide Recitative) Names of the sounds in the ordinary gamut, without regard to the tone which we are in.

NETE. This was, in the Greek music, the fourth chord, or sharpest of each of the three tetrachords, which followed the two first from flat to sharp.

When the third tetrachord was conjoint with the second, this was the tetrachord synneimenon, and its nete was called nete synneimenon.

This third tetrachord bore the name of diezeugmenon when it was disjoint, or separated from the second by the interval of a tone, and its nete was called nete diezeugmenon.

Lastly, The fourth tetrachord, always bearing the name of hyperboleon, its nete was always called also nete hyperboleon.

In regard to the two first tetrachords, as they were always conjoint, they had no nete, either of them; the fourth chord of the first, being always the first of the second, was called hypate meson; and the fourth chord of the second, forming the middle of the system, was called mesis. *Nete*, says Boetius, *quasi neate, id est, inferior*, for the ancients, in their diagrams, placed the flat sounds above, and the sharp below.

NETOIDES. Sharp sounds. (Vide Lepsis.)

NEUME. A term in church-music. The neume is a kind of short recapitulation of the air in a mode, which is made at the end of an ancient, by a simple variety of sounds, and without joining.

joining to them any words. The Catholics authorize this singular custom on a passage of St. Augustine, who says, that no words being possible to be worthy of pleasing God, it is laudable to address him in a confused music of jubilation. “For to whom is such a jubilation suitable, unless to an ineffable Being? and how can we celebrate this ineffable Being, since we cannot be silent, or find any thing in our transports which can express them, unless unarticulated sounds?”

**NIGLARIAN.** The name of a note, or air of an effeminate and soft melody, as Aristophanes reproaches Philoxenes its author.

**NIMBLY.** This word expresses a movement still quicker than gay, a movement which is a medium between gay and quick. It answers nearly to the Italian term *vivace*.

**NINETEENTH.** An interval which comprehends eighteen conjoint degrees, and, consequently, nineteen sounds of the diatonic, reckoning the two extremes. This is the double octave of the fifth. (Vide Fifth)

**NINTH.** The octave of the second. This interval has the name of ninth, because we must form nine consecutive sounds to arrive diatonically from one of its terms to the other. The ninth is major or minor, as the second, of which it is the *replique*. (Vide Second)

There is a concord by supposition, which is called concord of the ninth, to distinguish it from the concord of the second, which is prepared, accompanied and prevented differently. The concord of the ninth is formed, by a sound placed in the bass, a third below the concord of seventh, which is the occasion of the seventh itself making a ninth on this new sound. The ninth is accompanied, consequently, by the third, the fifth, and sometimes the seventh. The fourth note of the tone is generally that on which this concord is most suitable, but it may be placed every where in harmonic unions. The bass ought always to arrive by ascending to the note which bears the ninth. The part which forms the ninth ought to syncopate, and prevents this ninth as a seventh, descending diatonically from one degree on the octave, if the bass continues in its place, or on the third, if the bass descends from the third. (Vide Concord, Supposition, Syncope)

In the minor mode, the sensible concord on the mediant loses the name of concord, and takes that of superfluous fifth. (Vide Superfluous Fifth)

**NOELS, or CHRISTMAS CAROLS.** Kinds of airs allotted to certain cantics, sung by the people in the celebration of Christmas. The airs of these carols should have a rural and pastoral character, suitable to the simplicity of the words, and to that of

the shepherds, who, we suppose, sung them at going to pay homage to the infant Jesus in the manger.

**NOME.** Every air determined by rules which it was not permitted to break, bore amongst the Greeks the name of nome.

The nomes received their denominations, first, either from certain people, æolian nome, lydian nome; secondly, or from the nature of the rhyme, orthian nome, dactylic nome, trochaic nome; or thirdly, from their inventors, Hieracian nome, Polymnestant nome; fourthly, or from their subjects, pythian nome, comic nome; fifthly or lastly, from their mode, hypatoid or flat nome, netoid or sharp nome, &c.

There were two-part nomes which were sung on two modes. There was also a nome called three parts, which was sung on three modes, viz. the doric, the phrygian, and the lydian. (Vide Song, Mode)

**NOMIC.** The nomic nome, or the genus of the musical style which bore this name, was consecrated, among the Greeks, to Apollo, god of songs and verses, and wherein they endeavoured to render the airs brilliant, and worthy of the god to whom they were consecrated. (Vide Mode, Melopœa, Style.)

**NOMION.** A kind of love song amongst the Greeks. (Vide Song)

**NOTES.** Signs or characters used to mark, that is, to write the music.

The Greeks made use of the letters of their alphabet to mark their music. Moreover, as they had twenty-four letters, and as their greatest system, which was only of two octaves in a same mode, did not exceed the number of sixteen sounds, it would seem that the alphabet must have been more than sufficient to express them, since their music, being only their poetry marked, the rhyme was sufficiently determined by the metre, without there being wanting for that absolute powers, and signs peculiar to music; for tho' by superabundance they had characters also to mark the different feet, it is certain, that vocal music was not in want of it; and instrumental music, being only the vocal play'd by instruments, had neither need of it, since the words were written, or the symphonist knew them by heart.

But we must take notice, in the first place, that two same sounds, one while at the extremity, and another while in the middle of the third tetrachord, according to the place wherein the disjunction is made, (Vide that word) they gave to each of those sounds, names and signs which expressed these different situations. Secondly, that these sixteen sounds were not all the same in the three genera; that there were some common to the three, and others peculiar to each; and that notes were consequently



quently necessary to express these differences. Thirdly, that music was differently noted for instruments than for the voice, as we have at present, for certain chord instruments, a table which has no resemblance to that of ordinary music in the least. Lastly, that the ancients having as many as fifteen different modes, according to the numbering of Alypius, (Vide Mode) it was necessary to appropriate characters to each mode, as we see in the tables of the same author. All these modifications required a multitude of signs, for which the four and twenty letters were very far from sufficing. From thence arises the necessity of using the same letters for several sorts of notes, which obliged them to give to those letters different situations to couple them, main them, and lengthen them in different senses. For instance, the letter Pi written in all these forms Π, II, ≡, Π, Π, expressed five different notes.

By combining all the modifications which these different circumstances required, we find nearly 1620 different notes, a prodigious number, which must have rendered the study of music a thing of the greatest difficulty. It was certainly so in the time of Plato, who advises young men to spend two or three years in studying its rudiments only. The Greeks, however, had not so great a number of characters, but the same note had sometimes different significations, according to occasion; wherefore, the same character which marks the proslambanomenos of the lydian mode, marks the parhypate meson of the hypo-iaastian mode, the hypate meson of the hypo-phrygian, the lichanos hypaton of the hypo-lydian, the parhypate hypaton of the iaastian, and the hypate hypaton of the phrygian. The note changes also sometimes, tho' the sound continues the same; as, for instance, the proslambanomenos of the hypo-phrygian, which has the same sign in the hyper-phrygian, hyper-dorian, phrygian, dorian, hypo-phrygian, and hypo-dorian modes, and another same sign, in the lydian and hypo-lydian modes.

Notes of the Ancient Greek Music.

DIATONIC GENUS, LYDIAN MODE.

N. B. The first Note is for Vocal Music, the Second, for the Instrumental.

Modern Names.	Ancient Names.	Notes.	Explanation.
La	Proflambanomenos	Z	Zeta imperfect, and Tau couchant
Si	Hypaté hypaton	I	Gamma backwards, and Gamma just.
Ut	Parhypaté Hypaton	R	Beta imperfect, and Gamma varied.
Re	Hypaton Diatonos	Φ	Phi, and Digamma.
Mi	Hypaté meson	C	Sigma, and Sigma.
Fa	Parhypaté meson	P	Rho, and Sigma couchant.
Sol	Meson Diatonos	M	Mu, and Pi prolong'd.
La	Mefis	I	Iota, and Lambda couchant.
Si b	Trité Synnemenon	Θ	Theta, and Lambda varied.
Si ♯	Paramefis	Z	Zeta, and Pi couchant.
Ut	Synnemenon Diatonos	Γ	Gamma, and Nu.
Re	Neté Synnemenon	Ω	Omega varied, and Zeta.
Ut	Trité Diezeugmenon	E	Eta and Pi varied, and prolong'd.
Re	Diezeugmenon Diatonos	comme la	Neté Synnemenon, which is the same chord.
Mi	Neté Diezeugmenon	Φ	Phi couchant, and Eta courant prolong'd.
Fa	Trité hyperboleon	Α	Upsilon varied, and Alpha with the right stroke cut off.
Sol	Hyperboleon Diatonos	Μ	Mu, and Pi prolong'd, top'd with an accent.
La	Neté hyperboleon	Ι	Iota, and Lambda couchant, top'd with an accent.

REMARKS.

## R E M A R K S.

Tho' the chord diatonos of the tetrachord fynnenon, and the trité of the tetrachord diezeugmenon, have different notes, they are only the same chord, or two chords in unison. It is the same thing with the two chords, neté fynnenon and diezeugmenon diatonos; these two also have the same chords. We must also take notice, that the mesis and nete hyperboleon bear the same note for the vocal, tho' they are in the octave of each other: It is apparent, that in practice there was some other method of distinguishing them in music.

The curious, who would wish to know the notes of all the genera and modes, may consult, in Meibomius, the tables of Alypius and Bacchius.

We here find the table of notes in the diatonic genus in the ly-dian mode, which was the most used; these notes having been preferred to those of the other modes by Bacchius, are sufficient to understand all the examples which he gives in his work; and the music of the Greeks being no longer in use, this table suffices also to put an end to the errors of the public, who think their manner of marking notes so entirely lost, that this music would be impossible for us to decypher. We might decypher it as exactly as the Greeks themselves could have done, but to phrase it, to accent it, to understand it, to judge of it, is possible to no one, and never can become so. In every kind of music, as well as in every language, to decypher, and to read, are two things very different. The Latins, who, in imitation of the Greeks, marked also their music with the letters of their alphabet, removed also a great quantity of their notes, the enharmonic genus having ceased its practice entirely, and several modes being no longer in use. It appears that Boetius established the use of fifteen letters only; and Gregory, bishop of Rome, considering that the connections of the sounds are the same in each octave, reduced these fifteen notes also to the seven first letters of the alphabet, which were repeated in different forms from one octave to another.

Lastly, In the eleventh age, a benedictine of Arezzo, named Gui, substituted, in the place of these letters, points placed on different parallel lines, to each of which a letter served as cleff. In the end, these points were enlarged; it was also thought convenient to place some in the spaces comprised between these lines, and these lines and spaces were multiplied as occasion required. (Vide Stave)

The

The notes had for some time no other use than to mark the degrees and differences of intonation. They were all, in regard to duration, of equal powers; and received, in regard to this, no other difference than those of long and short syllables, on which they were sung: It is nearly in this condition that the church-music the Catholics has continued to this day; and the music of the psalms, amongst the protestants, is still more imperfect; since, in their use, the lengths of the breves, or the rounds of the minims, were not even distinguished, tho' they preserved two different figures.

This indistinction of figures continued in the general opinion, as far as 1338, when Jean de Muris, a doctor and canon of Paris, gave, it is pretended, different figures to the notes, to mark the connections of duration which they had between each other: he also invented certain signs of measure, called modes or prolations, to determine, in the course of an air, if the reference of long to short should be double or triple, &c. Many of the figures no longer subsist. There have been others substituted in their place at different times. (Vide Measure, Time, Power of Notes.) Vide also, at the word Music, what I have said of this opinion.

To read music written by notes, and to render it exactly, there are eight things to be considered. First, the cleff and its position. Secondly, the diesis's or B's flat which may accompany it. Thirdly, the place or position of each note. Fourthly, its interval, that is, its connection with that which precedes, or with the tonic, or some fixed note whose tone we have. Fifthly, its figure, which determines its powers. Sixthly, the time wherein it is found, and the place it occupies. Seventhly, the diesis B flat, or accidental B sharp, which may precede it. Eighthly, the kind of the measure, and character of the movement. And all this, without reckoning either the words or syllables to which each note belongs, the accent, or the expression suitable to the sentiment, whereon we reflect. One of these eight observations only omitted, may make it jar, or play out of time.

The music has had the lot of those arts which improve but slowly.

The inventors of notes have been attentive to the state only, wherein it was in their time, without reflecting on that to which it might be raised; and in the end, their marks have been found so much the more defective, as the art has been since improved. In proportion as they advanced, they established new rules to remedy the present inconveniencies; by multiplying the signs, they have multiplied the difficulties; and by dint of additions and cyphers, they have drawn, from a simple principle, a system very confused, and very badly regulated.

We

We may reduce its faults to three principals : The first is the multitude of signs and their combinations, which load the mind and memory of beginners in such a manner, that the ear is form'd, and the organs have acquired habit, and a necessary facility, a long time before they are able to sing *à livre ouvert* ; from whence it follows, that the difficulty is intirely in an attention to the rules, and not at all in the execution of the air. The second, is the little evidence in the nature of major, minor, diminished, and superfluous intervals, all indistinctly confounded in the same positions ; a fault of such influence, that it is not only the principal cause of the slowness in the progress of scholars, but, moreover, there is no musician form'd, who can fail of being incommoded in the execution. The third, is the extreme diffusion of the characters, and the too great extent which they take up, which, join'd to those lines, to those staves so inconvenient to trace, becomes a source of embarrassment of more than one kind. If the first advantage of instituting signs, was, that they should be clear, the second is, that they should become concise ; what judgment then we form of an order of signs in which both the one and the other are wanting ?

Musicians, it is true, cannot see any thing of this. Custom has habituated them to this. Music to them is not the knowledge of sounds ; it is that of crotchets, minims, demi-crotchets, &c. &c. As soon as these figures cease to be present, they cannot satisfy themselves that they see music. Moreover, what they have learnt with difficulty, how can they render it easy to others ? It is not then the musician who should be consulted herein, but the man who *understands* music, and who has reflected on the art.

There are not, in this last class, two that agree in the errors of our notes ; but still these faults are easier to know than to correct. Many have endeavoured at this correction without success for some time. The public, without any great discussion on the advantage of the signs proposed to it, always embrace those which are already established, and must always prefer a bad method of knowing, to a better of learning. Wherefore, because a new system is rejected, is no solid proof of any thing more, than that the author came too late ; and we may always discuss and compare the two systems, with any regard on this point, to the judgment of the public.

All the methods of marking notes, which have not had for their grand law the evidence of intervals, do not seem to me worthy of the trouble of being removed. I will not then make any stop at that of Mons. Sauveur, which may be seen in the *Memoirs of the Academy of Sciences*, anno 1721, nor at that of

Monf. Demaux, given fome years after. In thefe two fyftems, the intervals being expreffed by figns intirely arbitrary, and without any true connection with the thing represented, efcape the moft attentive eyes, and can be fixed on the memory alone; for of what fervice are heads differently figured, and tails differently directed, to the intervals which they ought to exprefs? Such figns as thofe have nothing in them which fhould make them preferable to others; the neatnefs of the figure, and the little place which it takes up, are advantages which might be found in a fyftem entirely different: chance may have given the firft figns, but we muft have a choice more peculiar to the thing in thofe which fhould be fubftituted in their place. Thofe which have been propofed in 1743, in a little work, intituled, “*Difertation on the Modern Mufic*,” having this advantage, their fimplicity perfuades me to lay down their abridged fyftem in this article.

The characters of mufic have a double object, viz. to represent the founds, firft, according to their different intervals from flat to fharp, which conftitutes the air and harmony. Secondly, according to their different relative durations from quick to flow, which determines the time and meafure.

In the firft cafe, in whatever method we turn and combine written and regular mufic, we can never find any combinations therein but of the feven notes of the gamut, carried in different octaves, or tranfpofed on different degrees, according to the time and mode which we have chofen. The author expreffes thefe feven founds by the feven firft cyphers; fo that the cypher 1 forms the note ut, 2 the note re, 3 the note mi, &c. and he traverses them with a horizontal line, as in the example.

#### The Octave in afcending.

I  
—1—2—3—4—5—6—7—  
ut, re, mi, fa, fol, la, fi, ut.

He writes above the line the notes which continuing to afcend, would be found in the fuperior octave; wherefore ut, which immediately follows fi, afcending a femi-tone, fhould be above the line in this manner, —4<sup>1</sup>; and in the fame manner the notes which belong to the fharp octave, of which this ut is the beginning, ought to be all above the fame line. If we entered into a third octave in fharp, we have only to traverse the notes by a fecond accidental line above the firft.

If, on the contrary, we would defcend into the octave inferior to that of the principal line, we muft write immediately below that line, the notes of the octave which follow it defcending: if  
then



then you descend an octave, add a line below, as you have placed one above, to ascend, &c. By means of three lines only, you may go through the whole extent of five octaves, which cannot be done in our ordinary music in less than eighteen.

We may even manage without drawing any line. We place all the notes horizontally in the same rank: if we find a note which passes the fi of the octave wherein we are in ascending, i. e. which enters into a higher octave, we place a point on this note. This point suffices for all the following notes which remain without interruption in the octave wherein we are entered. If we re-descend from one octave to the other, it will require another point under the note by which we enter therein, &c. We see in the following example the progress of two octaves, as well ascending as descending, marked in this manner.

1 2 3 4 5 6 7    1 2 3 4 5 6 7    1 7 6 5 4 3 2    1 7 6 5 4 3 2 1

The first method of marking with lines is suitable to music greatly laboured, and very difficult for large partitions, &c. The second with points is proper for simple music, and trifling airs, but nothing hinders us from using it at our pleasure in the place of the other; and the author has made use of it in transcribing the famous Arietta, "*L'Objet qui regne dans mon Ame*," which we find pricked in partition by the cyphers of that author, at the end of his work.

By this method, all the intervals become so evident, that nothing can equal it: the octaves always bear the same cypher; the simple intervals are always known in their doubles or composition.

We instantly discover in the tenth — <sup>3</sup>1 — or 13, that it is the octave of the major third; the major intervals can never be confounded with the minor: 24 will be continually a minor third; 46 a major third. The position has nothing to do with that.

After having thus reduced the whole extent of the keys, under a much smaller compass, with much clearer signs, we now pass to the transpositions.

There are only two modes in our music. What is fingering or playing in re major? It is transporting the scale or the gamut of ut a tone higher, and placing it on re as tonic or fundamental.

All the references which belonged to ut pass to re by this transposition. It is to express this system of connections, raised or lowered so much, that so many alterations of diesis and B's flat have been thought necessary on the cleff. The author of the New System suppresses all this embarrassment at a stroke. The single word re, plac'd at top, and in the margin, gives us

Z z z

notice,

notice, that the piece is in major re ; and as then the re takes all the connections which ut had, it takes also its sign and name. It is marked with the cypher 1, and all its octave follows by the cyphers 2, 3, 4, &c. as before. The re of the margin serves as its cleff, it is the touch re or D of the natural key ; but this same re becomes a tonic under the name of ut, and becomes also the fundamental of the mode.

But this fundamental, which is tonic in the major tones, is only mediant in the minor ; the tonic which takes the name of la, being then found a minor third below this fundamental. This distinction is made by a small horizontal line drawn under the cleff. Re, without this line, expresses the major mode of re ; but re, with the line under it, designs the minor mode of fi, of which this re is the mediant. This distinction, which serves only to determine clearly the tone by the cleff, is not more necessary in the new system than in the ordinary note, wherein it is not placed. Wherefore, though no attention should be paid to it, we could not sol fa less exactly. Instead of the same names of the notes, we might make use, for cleffs, of the letters of the gamut, which answers to them, C for ut, D for re, &c. (Vide Gamut)

The musicians affect a great deal of contempt for the method of transpositions, doubtless, because it renders the art too easy. The author shows that this contempt is ill founded : that it is their method we should despise, since it is laborious to no end ; and the transpositions, whose advantage he shows, are, even without reflecting on them, the true rule which all the great musicians and good composers follow. (Vide Transposition)

The tone, the mode, and all their connections well determined, it is not sufficient to make all the notes of each octave be known, nor the passage from one octave to another by clear and precise signs ; we must, besides, express the part of the keys, which these octaves employ. If I have a sol to tune, it must be known which, for there are five in the keys, the one high, the other middle, the other low, according to the different octaves ; these octaves have each their letters ; and one of these letters placed on the line, which serves as a stave, denotes to what octave that line belongs, and, consequently, the octaves which are above and below. We must see the figure at the end of his book, and the explanation the author gives to it, to be able to judge of this part of his system, which is amongst the most simple.

It remains, for the expression of all the possible sounds in our musical system, to render the accidental alterations introduced by the modulation, which may be easily done. The diesis is form'd by traversing the note with a stroke ascending from the left to the

the right, in this manner: fa diesis 4; ut diesis 1. We mark the B flat by a similar mark descending, si B flat 7; mi B flat 3. In regard to B sharp, the author suppresses it as an useless sign in his system.

This part being thus filled, we must now come to the time and measure. The author lays all waste before him on this crowd of different measures, with which the music has been so improperly loaded. He knows only two like the ancients, viz. two-tim'd and three-tim'd measures. The times of each of these measures may, in their turn, be divided into two or three equal parts. From these two combined rules, he draws exact expressions for all the possible movements.

We connect in ordinary music the different powers of the notes to that of a particular note, which is the semi-breve, which causes that the powers of this note continually varying, the notes compared with it have no fixed powers. The author handles it differently. He determines the power of the notes only on the kind of measure in which they are used, and on the time which they employ therein, which dispenses him from having, for these powers, any particular sign besides the place which it fills.

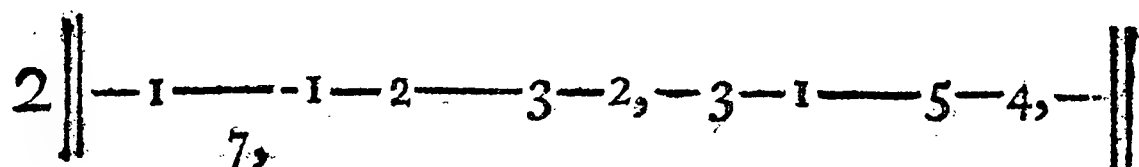
One single note between two bars fills a whole measure. In the measure of two times, two notes filling up the measure, form each of them a time. Three notes do the same thing in a three-tim'd measure. If there are four notes in a two-tim'd measure, or six in a measure of three, it is, that each time is divided into two equal parts; we pass then two notes for a time; we pass three when there are six notes in one, and nine in the other. In a word, when there is no sign of inequality, the notes are equal, their number is distributed in a measure according to the number of the times, and the nature of the measure: To render this distribution more easy, we separate, if we chuse it, the times by comma's; so that in reading music, we see clearly the power of the notes, without its being necessary to give them, on that account, any particular figures.

#### Example of equal Powers.

2 || 1-  
7 1-2- | 3-2-3-1- | 5-4-5-6- | 7-6-7-5- | <sup>I</sup> 4-5- | 1- ||

Idem,

Idem, separating the Times by Comma's, &c.



The unequal divisions are marked with the same facility. These inequalities are never more than sub-divisions, which are brought into an equality by a stroke, with which two or more notes are covered. For instance, if a time contains a demi-crotchet and two double demi-crotchets, a stroke in a right line above or below the two double demi-crotchets, will shew that they form together only a quantity equal to the preceding, and consequently, one demi-crotchet; wherefore, the entire time is found divided into two equal parts, viz. The single note, and the stroke which comprehends two. There are also sub-divisions of inequality, which may require two strokes, as, if a demi-crotchet pointed was followed by two triple demi-crotchets, in that case, a stroke on the two notes would be first necessary, to represent the triple demi-crotchets, which would render them together equal to the point; then a second stroke, which covering the precedent stroke and the point, might render all that it cover'd equal to the demi-crotchet. But whatever quickness the notes may have, these strokes are never necessary but when the powers are unequal, and whatever inequality there may be therein, we shall never want more than two strokes, particularly in separating the times by stops, as we may see in the example following.

The author of the new system uses the point also, but otherwise than in ordinary music: In this, the point is equal to half of the note which precedes it; in his, the point, which also marks the prolongation of the preceding note, has no other power than that of the place which it fills: If the point fills a time, it is equal to a time; if it fills a measure, it is equal to a measure; if it is in a time with another note, it is equal to the half of this time. In a word, the point is reckoned as a note, is measured as the notes, and to mark line's or syncope's, we may make use of several points together, of equal or unequal powers, according to those of the times or measures which these points are to fill.

All the silences are in want of one character only, which is the O. This is used as the notes, and as the point. The point is marked after it to prolong a silence, as after a note to prolong a sound. (Vide the example of this):



Continued.

$\overline{\text{3} \cdot \text{5}} \text{ 13} \mid \text{6 2 7} \cdot \mid \text{I} \cdot \text{O} \mid \text{4} \cdot \text{6} \text{ 24} \mid \text{3} \cdot \text{5} \text{ 13} \mid \text{6 54 3 2} \mid \text{I} \cdot \text{O} \parallel$   
 ri—fo al | cie-lo al | mar | il—bel | ri—fo al | cie—lo al | mar |  
 $\text{I} \text{---} \text{3} \text{---} \text{4} \text{---} \text{5} \text{---} \text{10} \text{---} \text{I} \text{---} \text{3} \text{---} \text{4} \text{---} \text{5} \text{---} \text{I} \text{---}$   
 I 5 5 3 1 6 6 7 I 5 4 3 2

$\overline{\text{3} \cdot \text{5}} \text{ 4 6} \mid \text{5 2 3} \mid \text{4 5 4 3} \mid \text{3} \cdot \text{2} \text{ O} \mid \text{3} \cdot \text{4 5 4 5 6}$   
 Co—fi | vuo spe | rar an | ch'io | che—ri |  
 $\text{I} \text{---} \text{54} \text{---} \text{32} \text{---} \text{I} \text{---}$   
 6 7 4 4 4 5 6

$\overline{\text{5} \text{ 2 3}} \mid \text{2 I 7} \mid \text{7 6 O} \mid \text{27 I 6} \mid \text{4} \cdot \text{5} \mid \text{6 7 I 7}$   
 for ga | nel mio | co-re | lie to a | mo—re | e l pian ta |  
 $\text{I} \text{---} \text{2} \text{---} \text{I} \text{---} \text{3} \text{---} \text{2} \text{---} \text{I} \text{---}$   
 7 4 4 5 2 7 7 4 5

$\text{7 6 O} \mid \text{I} \cdot \text{3 6 I} \mid \text{7} \cdot \text{2 5} \mid \text{I 7 6 6} \cdot \mid \text{5 O}$   
 mi-o | deb—ba un | gior—no | con—fo— | lar |  
 $\text{2} \text{---} \text{3} \text{---} \text{2} \text{---} \text{3} \text{---} \text{2} \text{---} \text{3} \text{---} \text{2} \text{---}$   
 2 2 3 3 4 5 5 2 5 6 5 4 3 2

$\text{5 3 4 2} \mid \text{7} \cdot \text{I}$   
 Quan-do | fpun—ta in, &c. |  
 $\text{I} \text{---} \text{6} \text{---} \text{5} \text{---} \text{4} \text{---} \text{3} \text{---}$   
 I 6

**SENSIBLE NOTE,** Is that which is a major third above the dominant, or a semi-tone below the tonic. The fi is a sensible note in the tone of ut, the sol diesis in the tone of la.

It is called sensible note because it makes the tone and tonic be felt, on which, after the concord dominant, the sensible note taking the shortest way, is obliged to ascend; which occasions that some treat this sensible note as a major dissonance, thro' fault of seeing that the dissonance, being a connection, cannot be constituted but by two notes.



I do not say that the sensible note is the seventh of the tone, because, in the minor mode, this seventh note is sensible only in ascending; for, in descending, it is a tone of the tonic, and in the minor third of the dominant. (Vide Mode, Tonic, Dominant.)

**NOTES OF TASTE.** There are two kinds of them. The one which belongs to the melody, but not to harmony; so that tho' they enter into the measure, they do not in the concord: these are marked in full. The other notes of taste, entering neither into harmony or melody, are marked only with small notes, which are not reckoned in the measure, and whose very rapid duration is taken on the note which precedes, or that which follows. Vide an example of the notes of taste in their two kinds.

#### Notes of Taste of the first Kind.



#### Notes of Taste of the second Kind.



**NOTHUS.** This is the epithet given by some to the hypophrygian mode, which has its final in fi, and consequently its fifth false, which cuts it off from the authentic modes; and to the æolian, whose final is in fa, and the fourth superfluous, which removes it from the number of plagal modes.

**TO NUMBER THE CLEFF.** Is to place in it the number of diesis's, or B's flat, suitable to the tone and mode in which we chuse to write our music. (Vide B Flat, Cleff, Diesis.)

**NUNNIA.** Was, amongst the Greeks, a song peculiar to nurses. (Vide Song.)

A a a

O.

## O.

**O.** This capital letter, form'd in a circle, or double C  $\mathcal{O}$ , is, in our ancient music, the sign which is called perfect time; that is, of triple measure, or three-tim'd, with the difference of the imperfect time, or double measure, which was marked by a simple C, or an O divided on the right or left C or  $\mathcal{O}$ .

The imperfect time was sometimes marked by a simple O; sometimes by an O pointed within, in this manner,  $\odot$ ; or by an O barr'd,  $\phi$ . (Vide Time.)

**OBLIG'D.** We call an oblig'd part, that which sometimes recites, that which we cannot remove without spoiling the harmony or the air, which distinguishes it from the parts of fulness, which are added only as a greater perfection of harmony, but by the removal of which, the piece is by no means mutilated. Those who are in the parts of fulness may stop when they choose; the music proceeds the same: But he who is buried in the oblig'd parts, cannot quit them an instant without failing in the execution.

**OCTACHORD.** An instrument or system of music, composed of eight sounds or seven degrees. The octachord or lyre of Pythagoras comprehended the eight sounds expressed by these letters, E, F, G, a,  $\mathbb{E}$ , c, d, e, that is, two disjoint tetrachords,

**OCTAVE.** The first of the consonances in the order of their generation. The octave is the most perfect of the consonances; it is, after the unison, that of all the concords whose connection is the most simple; the unison is in the computation of equality, that is, as 1 to 1. The octave is in double computation, that is, as 1 to 2. The harmonies of the two sounds agree in each without exception, which has no place in any other interval.

Lastly, these two concords have so much conformity, that they are often confounded in melody, and in harmony itself we take them indifferently one from the other.

This interval is called octave, because, to move diatonically from one of these terms to the other, we must pass by seven degrees, and make eight different sounds be heard.

Here are the properties which distinguish the octave so singularly from all the other intervals,

I. The octave confines within its bounds all the primitive and original sounds; so after having established a system, or a collection of sounds, in the extent of an octave, if we wish to prolong that collection, we must necessarily retake the same order in a second octave, by a similar series, and the same thing for a  
third

third and fourth octave, where we shall not find any sound which is not the repique of the first. Such a series is called scale of music in its first octave, and repique in all the rest. It is in virtue of this propriety of the octave, that it has been called diapason by the Greeks. (Vide Diapason.)

II. The octave takes in also all the consonances, and all their differences; that is, all the simple intervals, as well consonant as dissonant, and, consequently, the whole of harmony. Let us establish all the consonances on a same fundamental sound, we shall have the following table:

<u>120</u>	<u>100</u>	<u>96</u>	<u>90</u>	<u>80</u>	<u>75</u>	<u>72</u>	<u>60</u>
120.	120.	120.	120.	120.	120.	120.	120.

which answers to this:

1.	<u>5</u>	.	<u>4</u>	.	<u>3</u>	.	<u>2</u>	.	<u>5</u>	.	<u>3</u>	.	<u>1</u>	.
	6	.	5	.	4	.	3	.	8	.	5	.	2	

Where we find all the consonances in this order: the minor third, the major third, the fourth, the fifth, the sixth minor, the sixth major, and, lastly, the octave. By this table, we see that the simple consonances are all contained between the octave and unison. They may even be heard at a time in the extent of an octave without any mixture of dissonances. Strike, at the same time, these four sounds, ut, mi, sol, ut, ascending from the first ut to its octave, they will form together all the consonances, except the major sixth, which is composed, and will form no other interval. Take any two of these sounds, the interval will be always consonant: 'tis from this unison of all the consonances that the concord which produces them is called perfect concord.

The octave, giving all the consonances, gives, consequently, all their differences, and by them all the simple intervals of our musical system, which are only the differences themselves. The difference of the major and minor third gives the minor semi-tone; the difference of the major third and fourth gives the major semi-tone; the difference of the fourth and fifth gives the major tone; and the difference of the fifth and sixth major gives the minor tone. Moreover, the minor semi-tone, the major semi-tone, the minor and major tones, are the only elements of all the intervals in our music.

III. Every sound consonant with one of the terms of the octave, is consonant also with the other. Consequently, every sound dissonant with one, is dissonant with the other.

A a a 2

IV.

IV. Lastly, the octave has this propriety also, the most singular of all, that it can be added to itself, tripled, and multiplied at pleasure, without changing its nature, and without its product ceasing to be a consonance.

This multiplication of the octave, as well as its division, is however bounded in regard to us, by the capacity of the auditive organ; and an interval of eight octaves already exceeds that capacity. (Vide Extent.) The octaves themselves lose something of their harmony in being multiplied; and, beyond a certain measure, all the intervals are less easy for the ear to catch; a double octave begins already to be less agreeable than a simple; a triple than a double; lastly, in the fifth octave, the extreme distance of its sounds deprives the consonance nearly of the whole of its beauty.

It is from the octave that we draw the ordained generation of all the intervals by harmonic divisions and sub-divisions. Divide harmonically the octave 3. 6. by the number 4. you will have on one side the fourth, 3. 4. and on the other side the fifth, 4. 6.

Divide, in the same manner, the fifth, 10. 15. harmonically by the number 12. you will have the minor third, 10. 12. and the major third 12. 15. Lastly, divide the major third 72. 90. again, harmonically by the number 80. you will have the minor tone 72. 80. or 9. 10. and the major tone 80. 90. or 8. 9, &c.

We must take notice, that these harmonic divisions give always two unequal intervals, the least of which is in flat, and the greater in sharp. If we make the same divisions in arithmetical proportion, we shall have the smallest interval in sharp, and the greater in flat. Wherefore the octave 2. 4. arithmetically divided, will immediately give the fifth 2. 3. in flat, then the fourth 3. 4. in sharp. The fifth 4. 6. will first give the major third 4. 5. then the minor third 5. 6. and so with the rest. We should have the same connections in contrary senses, if, instead of taking them, as I do here, by vibrations, we took them by the lengths of the chord. This knowledge is besides of little utility in itself, but it is necessary to understand the ancient authors.

The complete and rigorous system of the octave is composed of three major tones, two minor, and two major semi-tones. The tempered system is of five equal tones, and 2 semi-tones, forming together as many diatonic degrees on the seven sounds of the gamut, as far as the octave of the first. But as every tone may be divided into two semi-tones, the same octave is divided also chromatically into twelve intervals, each of a semi-tone, the seven precedent of which retain their name, and the five others  
take

take each the name of the diatonic sound nearest to it, below by diesis, and above by B flat (Vide Scale.)

I do not speak here of diminished or superfluous octaves, because this interval is seldom changed in melody, and never in harmony.

It is forbidden, in composition, to make two octaves together, between different parts, particularly in a similar movement; but this is permitted, and even elegant, formed on purpose, and à propos, through the whole of an air or a period: It is in this manner, that in several concerto's, all the parts take by intervals the *ripieno*, in octave or unison.

On the rule of the octave. (Vide Rule.)

**TO OCTAVE.** When we force the air in a wind instrument, the sound immediately ascends to the octave: this is what we call to octave. In strengthening the inspiration thus, the air being inclosed in the pipe, and constrained by the exterior air, is obliged, in yielding to the quickness of the oscillations, to be divided into two equal columns, having each the half of the length of the pipe: It is in this manner that each of these halves sounds the octave of the whole. A chord of the violincello octaves by a similar principle, when the stroke of the bow is too rough, or too near the bridge. It is a fault in the organ when a pipe octaves. This happens from its receiving too much air.

**ODE.** A Greek word which signifies an air, or song.

**ODEUM.** This was, amongst the ancients, a place destined for the repetition of the music which was to be sung on the stage, as in the opera of Paris, is the little theatre du Magasin.

The name of odeum was given sometimes to buildings which had no connection with the theatre. We read in Vitruvius, that Pericles ordered an odeum to be built at Athens, where they disputed for the rewards of music; and in Pausanias, that Herod, the Athenian, constructed a magnificent odeum, as the sepulchre of his wife.

The Ecclesiastic writers design also some times the choir of a church, by the word odeum.

**OPERA.** A dramatic and lyric spectacle, where we use our endeavours to reunite all the charms of the fine arts, in the representation of a passionate action, to excite, by the assistance of agreeable sensations, the interest and illusion.

The constitutive parts of an opera, are the poem, the music, and the decorations. By poetry we speak to the mind; by music to the ear; and by painting to the eyes; and the whole ought to be reunited to move the heart, and convey to it, at the same time, the same impression through different organs. Of these three parts, my subject does not permit me to consider the first  
and

and last, but by the connection which they may have with the second. Wherefore I pass immediately to *that*.

The art of combining the sounds agreeably, may be viewed under two different aspects. Considered as an institution of nature, music bounds its effect by the sensation and physical pleasure which results from it, by the melody, harmony, and rhyme. Such is ordinarily the church-music; such are the tunes for dancing, and those of songs. But as an essential part of the lyric scene, whose principal object is the imitation, music becomes one of the fine arts, capable of painting every picture, of exciting every sentiment, of harmonizing with poetry, giving it a new strength, embellishing it with new charms, and triumphing by its means at the time that it crowns it.

The sounds of the speaking voice, neither sustained, nor harmonious, are not appreciable, and, consequently, cannot be agreeably allied with those of the singing voice and instruments, at least, in our languages, too much removed from a musical character; for we cannot understand the passages of the Greeks in their method of reciting, but by supposing their language to be accented in such a manner, that the inflections of the discourse in a sustained declamation, form between themselves musical and appreciable intervals; so we may see that their theatrical pieces were a kind of opera, and 'tis for this same reason, that there could be no opera properly called so amongst them.

By the difficulty of uniting the air to the discourse in our languages, it is easy to perceive, that the intervention of the music, as an essential part, must give the lyric poem a character different from that of tragedy and comedy, and make a third from it in the nature of a drama, which has its particular rules; but these differences cannot be determined without a perfect knowledge of the part added, of the methods to unite it with the words, and of its natural relation with the human heart: studies which belong less to the artist than to the philosopher, and which must be left for a pen formed to brighten every art, to shew to those who profess them, the principles of their rules, and to men of taste, the sources of their pleasures.

Confining myself, then, to some observations on this subject, more historical than reasoned, I shall first take notice, that the Greeks had not, in their theatre, a lyric genus as ourselves; and what they called by that name, was not at all similar to it. As they had much accent in their language, and but little *noise* in their concerts, all their poetry was musical, and all their music declamatory; so that their airs were little more than a sustained discourse, and they really sung their verses as they express at the head of their poems, which has given the Latins first, then  
ourselves,



ourselves, by imitation, the ridiculous custom of saying, "I sing," when we do not sing. "*Arma virumque Cano.*" In regard to what they called lyric genus in particular, it was an heroic poesy, whose style was pompous and figured, which was accompanied by the lyre or cithara, in preference to every other instrument. It is certain, that the Greek tragedies were recited in a manner very similar to the air, that they were accompanied with instruments, and that chorusses composed a part of them.

But if, on this account, it is thought that they were opera's like to ours, we must then imagine opera's without airs, for it seems to me sufficiently proved, that the Greek music, without even excepting the instrumental, was nothing more than a real recitative. It is true, that this recitative, which reunited the charm of the musical sounds to the whole harmony of poetry, and to all the force of declamation, must have much more energy than the modern, which cannot enjoy one of these advantages but at the expence of the rest. In our living languages, which in general carry with them the scent of the rudeness of that climate wherein they are original, the application of the music to the words is much less natural. A doubtful prosody is a bad agreement with the regularity of measure. Syllables mute without sound, articulations which are rough, sounds little harmonious and less varied, are with difficulty connected to melody; and a poetry cadenc'd by the number of syllables only, receives a harmony little felt in musical rhyme, and is incessantly opposed to the diversity of powers and their movements. Here are difficulties which should be conquered or eluded in the invention of the lyric poem. It was then endeavoured, by a choice of words, turns and verses, to make a proper language; and this language, which was called lyric, was rich or poor, in proportion to the sweetness or roughness of that from whence it was derived.

Having, in some respects, prepared the words for the music, it was then necessary to apply the music to the words, and to render it proper in such a manner on the lyric scene, that the whole might be taken for a single and the same idiom, which produced the necessity of continually singing, to appear always speaking; a necessity which reasonably arises from a language being little musical; for the less sweetness and accent a language has, the more the alternative passage of the words to the air, and the air to the words, becomes rough and disgusting to the ear. From thence arises the want of substituting, in the place of the discourse in recital, a discourse in music, which might so nearly imitate it, that there should be only the justness of the concords which could distinguish it from the words. (Vide Recitation.)

This

This method of uniting on the theatre the music to the poetry, which amongst the Greeks was sufficient for the interest and illusion, because it was natural, by the contrary reason could not suffice amongst us by the same ending. In listening to a constrained and hypothetic language, we have some trouble to conceive what is said: with much noise they afford little emotion. From thence arises the necessity of introducing a physical pleasure to the assistance of the moral, and to supply, by the attraction of harmony, what is wanting in the energy of expression. Wherefore, the less we know how to touch the heart, the more we must endeavour to flatter the ear. We are obliged to seek in sensation, that pleasure which sentiment denies us. Hence is the origin of airs, choirs, symphony, and of that enchanting melody with which modern music is often embellished, at the expence of the poetry, but which the man of taste banishes from the theatre, when he is flattered without emotion.

At the first rise of the opera, its inventor, wishing to elude what had very little nature, viz. the union of music to the discourse, in the imitation of human life, resolved to transport the scene to the heavens and hell, and, thro' an ignorance of making mankind speak, they chose rather to make gods and devils sing, than heroes and shepherds. Very soon the marvellous became the foundation of the lyric theatre, and, contented with enriching themselves with a new genus, they did not even pay attention to find whether they had chosen one that was suitable. To sustain so strong an illusion, it was necessary to drain all that human art could imagine most seducing amongst a people whose most ardent passions were the love of pleasure, and that of the fine arts. That celebrated nation, in which there remains nothing of its ancient grandeur, but that of the ideas in the fine arts, lavished all its taste and ingenuity to give this new spectacle all the eclat it stood in need of. Through the whole of Italy were seen theatres equal to the palaces of their kings, and, in elegance, like the monuments of antiquity, with which it was filled. They invented, to adorn them, the art of perspective and decoration. Artists of every kind displayed their talents to the utmost. The most ingenious machines, the boldest flights, tempests, thunder, lightning, and all the inventions of art, were used to fascinate the eye, whilst multitudes of instruments and voices astonished the ear.

With all this the action continued cold, and every situation was uninteresting. As there was no plot but what was easily discovered by the assistance of some god, the spectator, who knew the whole power of the poet, left him quietly the function of preserving his heroes from the greatest dangers. Wherefore, the  
preparations

preparations were immense, and produced little effect, because the imitation was always flat and imperfect; the action taken unnaturally was uninteresting to us; and the senses pay little regard to the illusion when the heart is unconcerned; so that on a computation of the whole, it would have been difficult to have tir'd an audience with greater expence.

This spectacle, imperfect as it was, became a long time the admiration of contemporaries, who knew no better. They even congratulated it on the discovery of so fine a genus. "Here," said they, is a new principle joined to those of Aristotle: here "is admiration joined with terror and pity." They did not perceive that this apparent richness was at bottom no more than a sign of sterility, as the flowers which cover the field before harvest. It was a want of knowing how to touch the passions that they wished to surprise; and this pretended admiration, was, in effect, no more than a childish astonishment, which they ought to have blush'd at. A false appearance of magnificence and enchantment, imposed on them to such a degree, that they spoke with enthusiasm of a theatre, which deserved only hissings: They had, with the most profound belief, as much veneration for the stage itself, as for the chimerical objects which they endeavoured to represent on it: as if there was a greater merit in making the king of gods speak flatly, than the lowest mortal; and that Moliere's valets were not preferable to Pradon's heroes.

Tho' the authors of these first operas had hardly any other aim than to dazzle the eye and stun the ear, it was difficult for the musician not to be tempted to seek to draw from his art the expressions of the sentiments scattered in the poem.

The songs of nymphs, the hymns of priests, the cries of warriors, the infernal howls, did not so much fill these vulgar drama's, but that there was some moment found of interest and situation, where the spectator requires only to take breath. Very soon they began to perceive, that, independantly of the musical declamation, which the language often ill suited the choice of the movement, the harmony and airs was not indifferent to the things which they had to say, and that, consequently, the effect of the music alone, bounded thus far to the senses, might even reach the heart. The melody, which was separated from poetry only thro' necessity, took a part of this independance, to give itself beauties, absolute, and purely musical: The harmony discovered or improved, opened new paths for it to please and move the soul; and the measure, freed from the hindrance of poetic rhyme, acquired also a kind of separate cadence, which it held of itself alone.

Music, being by this means become a third art of imitation, had very soon its language, expression, and paintings, independant

of poetry. The symphony itself, taught to speak without the assistance of words, and very often, as lively sentiments came from the orchestra as from the lips of the actors. It was then, that, beginning to be disgusted with all this chinking emptiness, childish parade of machinery, and fantastic images of things that were never seen, they sought in the imitation of nature, paintings more interesting and more credible. Till that time, the opera had been constituted as it could be; for what better use could be made on the stage, of a music which could paint nothing, than to use it in the representation of things that could not exist, and on which no one was in a condition of comparing the image with the object? It is impossible to know if we are affected by the painting of the marvellous, as we should be, were it present; whereas every man may judge by himself, if the artist has given the passions their true language, and if the objects of nature are truly imitated. As soon as music had learnt to paint and speak, the charms of sentiment soon made those of fable give way: The theatre was purged of its jargon of mythology; interest was substituted in the place of the marvellous; the machines of poets and carpenters were destroyed; and the lyric drama took a more noble and gigantic form. All that could touch the heart was used therein with success; they were no longer in want of imposing by beings of invention, or rather of folly; and the gods were turned off the stage, when they were able to represent mankind. This form, more sensible and more regular, is also more suitable to the illusion; they saw, that the master-piece of music was to make itself forgotten; that by throwing disorder and trouble into the soul of the spectator, it hindered him from distinguishing the tender and pathetic accents of a groaning heroine, from the real ones of grief; and that Achilles in a rage might chill us with horror, in the very same language that would have disgusted us from his lips at another time.

These observations gave cause to a second reformation, not less important than the first. They perceived, that nothing cold and reasoned was necessary to the opera; nothing that the spectator could listen to quietly enough to reflect on the absurdity of what he heard, and 'tis in that particularly, that the essential difference of the lyric drama and simple tragedy consists. All politic deliberations, all projects of conspiracy, expositions, recitals, sententious maxims, in a word, every thing that speaks to reason only was banished from the language of the heart, with the turns of the mind, madrigals, and every thing which proceeds from the thoughts only. The tone itself of simple gallantry, which agrees ill with the greater passions, was hardly admitted in tragic situations, whose effect it almost always spoils;  
for

For we never perceive better that the actor sings, than when he speaks a song.

The energy of all the sentiments, the violence of all the passions, are then the principal object of the lyric drama ; and the illusion which forms its charm, is always destroyed as soon as the author and actor leave the spectator a moment to himself.

Such are the principles on which the modern opera is established. Aportolo Zeno, the Corneille of Italy, his tender pupil, who is its Racine, have opened and improved this new career. They have dared to place the heroes of history on a theatre, which seemed to agree only to the phantoms of fable. Cyrus, Cæsar, Cato himself, have appeared on the stage with success ; and those spectators who were most averse to hearing such men sing, very soon forgot that they sung ; subjugated and ravished by the éclat of a music, as full of noble dignity as of enthusiasm and fire. We easily suppose, that sentiments so different from ours, ought to be also expressed in another tone.

These new poems which genius had created, and which itself only could sustain, were out of the depth of those musicians who had only the mechanism of their art ; and who, deprived of the fire of invention, and the gift of imitation, made opera's as they would have made wooden shoes. Hardly were the cries of the bacchanals, the conjurations of forcerers, all the airs which were no more than a real noise, banished from the theatre ; hardly had they endeavoured to substitute in the place of this barbarous *fracas*, the accents of passion, grief, threats, tenderness, tears, and groans, and all the motions of a troubled soul, when, obliged to give sentiments to their heroes, and a language to the human heart, the Vinci's, Leo's, Pergolese's, disdaining a servile imitation of their predecessors, and opening to themselves a new path, protected it under the wings of genius, and found themselves successful even in their first attempts. But we cannot long continue in the route of the *bon Goût*, without ascending or falling ; and perfection is a point wherein it is difficult to maintain our ground. After having endeavoured and felt its force, music, in a condition of moving by itself, begins to disdain the poetry which it ought to accompany ; and thinks to succeed better by her own separate beauties, than by those which she drew from her companion. It is true, she proposes to render the ideas and sentiments of the poet, but takes, in some respects, a different language ; and tho' the object is the same, the poet and the musician too, separated in their labours, offer at the same time two resembling images, but distinct, which are of mutual injury to each other. The mind, obliged to divide itself, chooses and fixes on one image rather than another. The musician then,

if he has more art than the poet, eclipses him and effaces his glory : The actor, seeing that the spectator sacrifices the words to the music, sacrifices in his turn the gesture and theatrical action to the air and beauties of the voice, which makes the piece quite forgot, and changes the spectacle into a real concert. If, on the contrary, the advantage is found on the side of the poet, the music, in its turn, will become almost indifferent ; and the spectator deceived by the noise, may take the change so far as to attribute, to a bad musician, the merit of an excellent poet ; and think he admires master-pieces of harmony, whilst his admiration is directed only to a well composed poem.

Such are the errors which the absolute perfection of music, and its want of application to language, may introduce into opera's in proportion to the concurrence of these two causes. Whereon we should remark, that the languages most proper to bend under the laws of measure and melody, are those where the duplicity which I have spoken of is least apparent ; because, the music being connected only with the ideas of poetry, this in its turn is connected with the inflections of melody ; and when the music ceases to observe the rhyme, the accent, and harmony of the verse, the verse gives way, and is used in the cadence of the measure and music, I accent. But when the language has neither sweetness or flexibility, the confinement of poetry hinders it from being connected with the air ; the sweetness of the melody itself hinders it from being united with the true recitation of verses ; and we perceive, in the forced union of these two arts, a perpetual constraint which disgusts the ear, and destroys, at the same time, the attraction of melody, and the effect of declamation. This error is without remedy ; and to attempt to apply forcibly the music to a language which is not musical, is to give it a greater roughness than it would have had without it.

By what I have said thus far, it must be seen, that there is a greater connection between the eye and the decoration, and the ear and music, than there appears between two senses which appear to have nothing common in them ; and that, in certain respects, the opera constituted as it is, is not so completely monstrous as it seems to be. We have seen, that by desiring to offer to the eye the interest and movements, which were wanting in the music ; they had imagined the low inventions of flying machines ; and that until they knew how to move us, they were contented with surprising us. It is therefore very natural, that music, become passionate and pathetic, should banish to strolling players, those silly supplements which it stood in no need of it itself. The opera then, purged of all the marvellous which debased it,  
became



became an entertainment equally touching and majestic, worthy of pleasing persons of taste, and interesting a sensible heart.

It is certain, that as much of the pomp might have been removed from the spectacle as was added to the interest of the action; for the more persons there are who act, less we are employed in the objects which surround them; but still the situation of the scene must be suitable to the actors who speak therein: and the imitation of nature, often more difficult, and always more agreeable, than that of imaginary beings, became more interesting as it became more natural. A beautiful palace, pleasing gardens, well executed ruins, please the eye much more than the fantastic image of Tartarus, Olympus, or the chariot of the sun; an image as much inferior to that which we trace in ourselves, as in chimerical objects: it costs nothing to the mind to go beyond possibility, and to make to itself models of every imitation. From thence it happens, that the marvellous, tho' misplaced in tragedy, is not so in the epic poems, where the imagination, always industrious and magnificent, is charged with the execution, and draws from it quite a different part than that which the best machinist can form on our theatre, or the splendor of the most potent monarch.

Tho' music, taken as an art of imitation, has still more connection with poetry than painting, that, in the *manner* it is used on the stage, is not so subject as poetry to form with the music a double representation of the same object; because the one renders the sentiments of mankind, and the other the image only of the place wherein they are fixed: an image which strengthens the illusion, and transports the spectator to every part wherein the actor is supposed to be placed. But this removal from one place to another, ought to have rules and boundaries: It is not permitted, in regard to this, to call forth the agility of the imagination, but by consulting the law of nature; and tho' the spectator seeks only an attention to those fictions from whence he draws his whole pleasure, we must not abuse his credulity so far as to make him ashamed of it. In a word, we must remember, that we speak to sensible hearts, without forgetting that we address ourselves to reasonable people. Not that I would transmit to the opera, that rigorous unity of place which is required in tragedy, and which cannot be attended to but at the expence of the action, so that we are exact in one particular to be abused in a thousand others. It would be besides to deprive ourselves of the advantage in the change of scenes, which make each other mutually prosper; it would be exposing ourselves by a vicious uniformity, to oppositions badly conceived, between the scene which remains continually, and the situations which change;  
it

it would be spoiling, by each other, the effect of music and that of decoration, as if we introduced voluptuous symphonies amongst rocks, or lively airs in the palaces of kings.

It is then with reason that the changes of the scene are left to subsist from act to act ; and for their being regular and admissible, it is sufficient that they can naturally go from the place whence they go out, to the place whereto they pass, in the interval of time which passes, or which the action supposes between the two acts ; so that, as the unity of time ought to be confined nearly within the duration of twenty-four hours, the unity of place should be confined nearly within the space of a day's journey. In regard to the changes of the scene, practised sometimes in the same act, they appear to me equally contrary to illusion and reason, and ought to be entirely abolished from the theatre.

Here then is the method by which the concurrence of the acoustic and perspective may improve the illusion ; flatter the senses by different, but analogous impressions ; and convey to the soul the same interest with a double pleasure. Wherefore it would be a great error to imagine, that the regulation of the theatre has nothing in common with that of music, if it was only from the general agreement which they draw from the poem. 'Tis for the imagination of the two artists to determine together, what that of the poet has left to their disposal ; and to agree so well in that, that the spectator may always feel the perfect concord of what he sees and what he hears. But it must be confessed, that the task of the musician is the greatest. The imitation of painting is always cold, because it wants that succession of ideas and impressions which inflames the soul by degrees, and every thing is said at the first view. The imitative powers of that art, with several apparent objects, are confined in effect to very weak representation. It is one of the great advantages of the musician, to be able to paint things which cannot be heard ; whilst it is impossible for the painter to paint those which cannot be seen : and the greatest prodigy of an art which has activity by its movements only, is to be able to form them as far as the representation of repose. Sleep, the calm of night, solitude and silence themselves, enter into the number of musical paintings. The noise sometimes produces the effect of silence ; the silence that of noise : as when a man sleeps at an equal and monotonous lecture, and wakes at the same instant it ceases ; and it is the same thing with other effects. But art has substitutions more fertile, and much nicer than those : it knows how to excite, by one sense, motions similar to those which may be excited by another ; and as the connection cannot be sensible but when the impression is strong, the painting, stripp'd of that force, gives, with difficulty, those imitations

imitations to music which it draws from it. Though all nature should slumber, he who contemplates it sleeps not ; and the art of the musician consists in substituting, in lieu of the insensible image of the object, that of the movements which its presence excites in the mind of the spectator : It does not directly represent the thing, but it awakens in our soul the same sentiment which we feel at the sight of it.

So, how little soever the painter has to draw from the partition of the musician, the skilful musician will not leave the works of the painter without some profit. He will not only agitate the sea at pleasure, excite the flames of a conflagration, make rivers flow, the rain fall, and the torrents enlarge, but he will increase the horror of a frightful desert ; will strengthen the walls of a subterraneous prison, will calm the storm, render the air peaceful, the sky serene, and will extend, throughout the orchestra, a new and lively freshness.

We have now seen how the union of the three arts, which constitute the lyric scene, forms between themselves a whole, aptly united. We have endeavoured to introduce a fourth, which remains to be spoken of.

All the motions of the body, ordered according to certain laws to effect the eye, take in general the name of gestures. The gesture is divided into two kinds : One is used as an accompaniment to the words ; and the other as a supplement. The first, natural to every man who speaks, is differently modified, according to men, languages and characters. The second, is the art of speaking to the eyes without the assistance of writing ; by motions of the body, become signs of convention. As this gesture is most laborious, less natural to us than the use of words, and that it renders it useless, it excludes it, and even supposes its privation : this is what was called the art of pantomimes. To this art add a choice of agreeable attitudes, and cadenc'd movements, you will then have what we call the dance, which by no means deserves the name of art, when it speaks nothing to the mind.

This finished, it is our next concern to know if dancing, being a language, and, consequently, an art capable of imitation, may enter with the three others in the course of the lyric action ; or if it can interrupt and suspend this action, without spoiling the effect and unity of the piece.

Moreover, I do not see that this last case may even demand a question. For every one perceives, that all the interest of a followed action depends on the continued and redoubled impression, which its representation makes on us ; that all the objects which suspend or divide the attention, are as many counter-charms  
which

which destroy that of interest ; that by dividing the spectacle by other spectacles which are unconcerned with it, we divide the principal subject into independant parts, which have nothing common between them but the general connection of the matter which composes them ; and that lastly, the more agreeable the inserted spectacles are, more the mutilation would be deformed. So that, supposing an opera divided by some *divertisements* which may be imagined, if they suffered the principal to be forgotten, the spectator, at the end of each *fête*, would be as little moved as at the beginning ; and to animate him afresh, and inspire him with a new movement, we should be obliged to begin again for ever. This is the reason why the Italians have banished from the interludes of their opera's, the comic intermedes that had been inserted ; a kind of agreeable spectacle, striking and taken from nature, but so misplaced in the middle of a tragic action, that the two pieces would mutually injure each other, and that one of the two could never interest but at the expence of the other.

It remains then to see, if, since the dance cannot enter into the composition of the lyric genus, as a different ornament, we could not make it enter as a constitutive part ; and make an art, which ought not to suspend the action, form a concurrence with it. But how can we admit, at the same time, two languages which mutually exclude each other, and join the pantomimic art to words which render it superfluous ? The language of the gesture being the resource of dumb Persons, or those who cannot understand each other, becomes ridiculous between those who speak. We do not answer words by antic tricks, or gestures by discourse ; otherwise, I do not see why he who understands the language of another, should not answer him in the same tone. Suppress then the words if you wish to make use of dancing. As soon as you introduce the pantomime into an opera, you must instantly banish poetry, because of all the unities, that of language is most necessary ; and it is absurd and ridiculous to say, at the same time, the same thing to the same person, both by writing, and by word of mouth.

The two reasons that I have alledged are united in their whole force to banish *fêtes* and *divertissemens* from the lyric drama, which not only suspend its action, but either speak nothing, or roughly substitute another opposite language, whose contrast destroys nature, weakens the interesting parts, and, whether continued in the same action, or in an inserted episode, equally gives a wound to reason. It would be much worse, if these *fêtes* presented the spectator with nothing but a leap without union, and a dance without an object ; a gothic and barbarous tissue, in a kind of work, wherein every thing should be painting and imitation.

We

We must however confess, that the dance is so advantageously placed on the stage, that it would be depriving it of one of its greatest beauties, to remove it entirely. So, though we ought not to debase a tragic action by leaps, and inter-leaps, we may still terminate a spectacle very agreeably, by giving a ballet after the opera, as a little entertainment after the tragedy. In this new spectacle, which has no reference to the precedent, we may also make choice of another language : It is another nation which appears on the stage. The pantomimic art or dance becoming then the language of convention, the words should be banished from it in their turn ; and the music, continuing the method of union, is applied to dancing in a small piece, as it was applied to the words in a greater. But before using this new language, we must create it. To begin then by giving ballets in action, without having first established the convention of gestures, is to speak a language to persons who have not its dictionary, and who, consequently, will not understand it in the least.

OPERA. Is also a word consecrated to distinguish the different works of the same author, according to the order in which they have been printed or engraved, and which he marks himself in general by cyphers. These two words are principally used for compositions of symphony.

ORATORIO. A kind of drama in Latin, or a vulgar language, divided by scenes, in imitation of theatrical pieces, but which is always on some sacred subject ; and set to music, to be executed in some church during Lent, and at other times. This custom, so common in Italy, is not admitted in France. The French music is so little suitable to the dramatic genus, that it is sufficient, for its insufficiency, to be shewn on the theatre, without displaying it in the church.

ORCHESTRA. This was, amongst the Greeks, the lower part of the theatre ; it was formed in a half circle, and adorned with seats on all sides. It was called orchestra because it was there that the dances were performed.

Amongst them the orchestra formed a part of the theatre : at Rome it was separated from it, and filled with seats appropriated to the senators, magistrates, vestals, and other persons of distinction. At Paris, the orchestra of the French and Italian play-houses, and what is besides called the *Parquet*, is put to a similar use.

At present, this word is more particularly applied to music, and means sometimes the place where those sit who play on the instruments, as the orchestra of the opera-house ; and sometimes the place where the whole band in general are fixed, as the or-

chestra of the spiritual concert at the Chateau de Tuilleries ; and again the collection of all the symphonists. It is in this last sense, that we say of the execution of music, that the orchestra was good or bad, to express that the instruments were well or ill played.

In the numerous pieces of music in symphonists, such as that of an opera, the true distribution of an orchestra is a care not to be neglected. We owe in great part to this care, the astonishing effect of the symphony in the operas of Italy. The first, attention is paid towards the fabric of the orchestra, that is, of the materials which it contains. They give it propositions proper for the symphonists to be most assembled and distributed in the properest manner. They take care to make the case of it of a light thin wood, to establish it on a *vide*, with arches for supporters, to remove the spectators from it by a partition placed in the pit, at a foot or two distance ; so that the body of the orchestra, being in a manner borne in the air, and touching hardly any thing, vibrates and resounds without any obstacle, and acts as a large instrument, which answers to all the rest, and increases their effect.

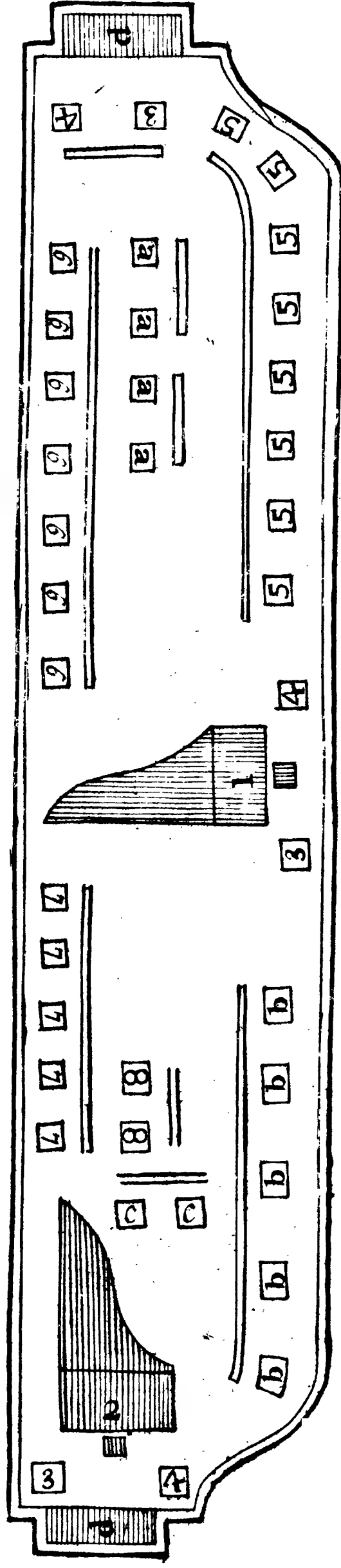
In regard to the interior distribution, we must be careful, first, That the number of each kind of instruments be proportioned to the effect which they should all produce together ; that, for instance, the bass should not be stifled by the treble, or stifle it ; that the hautboys should not predominate over the violins ; neither the seconds on the firsts. Secondly, That the instruments of each kind, except the basses, should be collected together, for them to agree and move together with more exactness. Thirdly, That the basses be dispersed around the two harpsichords, and throughout the orchestra, because it is the bass which should direct and sustain all the other parts, and all the musicians should equally hear it. Fourthly, That all the symphonists have their eyes on the master of his harpsichord, and the master on each of them, that in the same manner each violin be seen by the first, and the first see the rest ; for which reason, this instrument, being the most numerous, as it ought to be, should be distributed into two lines which regard each other, viz. the one sitting in front of the theatre, with their back to the spectators, and the others seated opposite to them, with their backs to the theatre, &c.

The first orchestra in Europe, for the number and intelligence of symphonists, is that of Naples ; but the best distributed, and which form together in the most perfect manner, is the orchestra at the opera-house of the king of Poland, at Dresden, directed by the illustrious Haffe. Following is the representation of this orchestra, where, without attention to the measures, which have not been taken in their places, we can judge better by the eye of the whole distribution, than we could have done on a longer description.



# Distribution of the Orchestra at the Opera-House of Dresden.

Directed by le Sr. Haffe.



## Explanation of the Cyphers.

1. Harpichord of the Master de Chapelle.
2. Ditto of Accompaniment.
3. Violoncellos.
4. Counterbasses.
5. First Violins.
6. Second Violins, with the Back towards the Theatre.

7. Hautboys, the same.
8. Flutes, the same.
- a. Tenors, the same.
- b. Bassoons.
- c. Hunting Horns.
- d. A Tribune on each Side for the Timbals and Trumpets.

It has been remarked, that of all the orchestras of Europe, that of Paris, tho' one of the most numerous, caused the least effect: The reasons may be easily discovered; First, the bad construction of the orchestra, sunk within the earth, and formed of materials of rough wood, massy, and loaded with iron, stifles every resonance. Secondly, the bad choice of symphonists, the greatest number of which, received thro' favour, hardly understand music, and have no idea of concinnity. Thirdly, their continual custom of scraping, agreeing and preluding with the greatest noise, without ever being in concord. Fourthly, the French genius, which generally neglects and disdains every thing that becomes a daily duty. Fifthly, the shocking instruments for symphony, which, continuing fixed on the place, are intended to bellow during the time of representation, and grow rotten in the interim. Sixthly, the bad placing of the master, who, at the forepart of the theatre, and quite busied with the actors, cannot be sufficiently attentive to his orchestra, and has it behind him, instead of before his eyes. Seventhly, the insupportable noise of his time-stick, which covers and stifles all the effect of the symphony. Eighthly, the bad harmony of their compositions, which, being never pure and chosen, gives the sound of a deafening and confused collection of instruments, instead of things which may produce an effect. Ninthly, not sufficient counter-basses and violoncellos, the sounds of which, trained after their method, stifle the melody and deafen the spectator. Tenthly and lastly, the errors of the measure, and the undetermined character of the French music, where it is the actor always who directs the orchestra, instead of the orchestra directing the actor; and where the treble introduces the bass, instead of the bass conducting the treble.

**ORGANIC.** This was, amongst the Greeks, that part of music which was executed on instruments; and this part had its characters, its peculiar notes, as may be seen in the Tables of Bacchius and Alypius. (Vide Music, Notes.)

**TO ORGANIZE.** This was, in the beginning of the invention of the counter-point, the insertion of some thirds in a collection of church-music, in unison; so that, for instance, that a part of the choir singing these four notes, ut, re, fa, ut; the other part sung, at the same time, these other four, ut, re, re, ut. It appears, by the examples cited by l'Abbe de Bœuf and others, that the organization was seldom practised but on the sensible note, at the approach of the final; from whence it follows, that they hardly ever organized but by a minor third. For a concord so easy and so little varied, the choristers who organized did not fail being paid at a dearer rate than the rest.

In

In regard to the organum triplum, or quadruplum, which was also called triplum or quadruplum simply, it was the same thing as the identical air of the organizing parts, toned by counter-tenors at the octave of the basses, and by trebles at the octave of the tenor.

ORTHIAN. The orthian nome, in the Greek music, was a dactylic, invented, according to some, by the ancient Phrygian Olympus; and according to others, by the Mysian. It is on this orthian nome, say Herodotus and Aulugelles, that Arion sung when he threw himself into the sea.

OVERTURE. A piece of symphony, which we endeavour to render splendid, flattering, harmonious, and which serves as an introduction to operas, and other lyric dramas of a certain extent.

The overtures of the French opera are almost all calculated on those of Lully. They are composed of a continuing piece, called *Grave*, which is generally played twice, and of a dancing *Reprise*, called gay, which is commonly fugued. Several of these *Reprises* are admitted also into the *Grave* at its conclusion.

There was a time when the French overtures served as a model for all Europe. Not sixty years ago, they sent from France overtures, to place at the head of their operas in Italy. I have even seen many ancient Italian operas marked with an overture of Lully at their head. This is what the Italians at present contradict, since the whole has had such a change; but, nevertheless, the fact is very certain.

The instrumental music having had an astonishing progress within about forty years, the ancient overtures, made for the symphonists, who were little skilled in managing their instruments, were very soon left for the French; and they have been contented with nearly preserving their disposition. The Italians themselves have not been slow in securing themselves from this hindrance; and they at present distribute their overtures in another manner. They began by a lively and pleasing piece of two or four times; then they give an andante *à Demi jeu*, in which they aim at displaying all the graces of a fine music; and they finish by a brilliant allegro, generally of three times.

The reason they give for this distribution, is, that in a numerous spectacle, where the spectators make great noise, they should persuade them to silence at the first stroke, and fix their attention by some bold beginning which may strike them. They say, that the grave of our overtures is neither heard, or listened to, by any one; and that our first stroke of the fiddle-stick, which we boast of with so great emphasis, less noisy than the concord of instruments which precedes it, and with which it is confounded, is

more suitable for persuading the audience to slumber than attention.

They add, that after having rendered the spectator attentive, it is necessary that he should be interested with less noise by an agreeable and flattering air, which may dispose him to the tenderness with which he is to be inspired; and lastly, to put an end to the overture in another character, which, being connected with the beginning of the drama, denotes, by finishing with *eclat*, the silence which the actor, at his entrance on the stage, requires of the spectators.

Our old course of overtures has caused a pleasant idea to be circulated in France: Many have imagined, that there was such an agreement between the form of Lully's overtures, and every opera, that it could not be changed without spoiling the effect of the whole; so that, of the beginning of a symphony, which should be in a different taste, such, for instance, as an Italian overture, they would say with contempt, that it was a sonata, and not an overture, as if every overture was not a sonata.

I know very well, that it would be a desirable thing for a proper and sensible connection to be between the character of an overture, and that of the work which it introduces; but instead of saying that all overtures should be cast in the same mould, this says precisely the contrary. Besides, if our musicians fail so often in catching the true connection of the music to the words in each piece, how can they catch the finer and more remote connections between the ordonnance of an overture, and that of the entire body of the work? Some musicians have flattered themselves to have caught these connections by collecting, before-hand in the overture, all the characters expressed in the piece, as if they would express the same action twice, and that what is to come should be already passed. It is not this. The best understood overture, is that which disposes the heart of the spectator in such a manner, as that it opens naturally to the interest which they endeavour to give it from the very beginning of the piece. This is the real effect that a good overture must produce. This is the plan on which it must be directed.

OXIPYCNĪ. Is the name which the ancients gave, in the crowded genus, to the third found in ascending from each tetrachord. Wherefore, the oxipycni sounds were five in number. (Vide Apycni, Crowded, System, Tetrachord.)

## P.

**P.** By abbreviation, signifies piano, that is, *sweet*. (Vide Sweet.)

The double PP. signifies pianissimo, that is, very sweet.

**PANTOMIME.** An air on which two or more dancers execute an action, which bears also the name of pantomime. The airs of pantomimes are generally a principal couplet, which returns often in the course of the piece, and which should be simple, for the reason given at the word *Country Dance*; but this couplet is intermixed with others more lively, which speak, as it were, and form an image in the situation where the dancer should place a determined expression.

**PAPER RUL'D.** By this name is called the paper prepared with the staves entirely drawn, to mark the music thereon. (Vide Stave.)

There is rul'd paper of two kinds, viz. that whose length exceeds its breadth, such as is commonly used in France; and that whose breadth is greater than its length. This last is the only one used in Italy. However, by a whim, the reason of which I know not, the paper-makers of Paris call *Paper rul'd a la Francoise*, that which is used in Italy; and *Paper rul'd a l'Italienne*, that which is preferred in France.

The form whose breadth exceeds its length, appears most commodious in my opinion, either because a book of this form is better laid open on a desk, or because the staves, being longer, they are less frequently changed: Moreover, it is in the changes that musicians are subject to take one staff for another, particularly in partitions. (Vide Partition.)

The rul'd paper used in Italy, has always ten staves, neither more or less; and that makes exactly two lines or columns in the ordinary partitions, where we have always five parts, viz. two trebles of violins, the viola, the singing part, and the bass. The division being always the same, and each one finding, in the partitions, his part placed in like manner, passes always from one column to another without embarrassment, or fear of mistaking. But in the French partitions, where the number of staves is not fixed and determined, either in the pages or columns, we are always obliged to hesitate at the end of each staff, to find, in the column that follows, the staff correspondent to that wherein we are, which renders the musician more doubtful, and the execution more subject to a failure.

**PARADIAZEUXIS** Was, in the Greek music, by the tradition of old Bacchius, the interval of one tone only between the chords of two tetrachords; and such is the nature of the disjunction which acts between the tetrachord *fynnemenon*, and the tetrachord *diazeugmenon*. (Vide those words.)

**PARAMESIS.** This was, in the Greek music, the name of the first chord of the tetrachord *diazeugmenon*. We must remember, that the third tetrachord may be conjoined with the second; then its first chord was the *mesis*, or the fourth chord of the second; that is, this *mesis* was common to the two.

But when this third tetrachord was disjoint, it began by the chord called *paramesis*, which, instead of being confounded with the *mesis*, was placed a tone higher; and this tone formed the disjunction or distance between the fourth chord, or the sharpest of the tetrachord *meson*; and the first, or sharpest of the tetrachord *diazeugmenon*.

*Paramesis* signifies near to *mesis*; because, in effect, the *paramesis* was only a tone distant, tho' there was sometimes a chord between two. (Vide *Trite*.)

**PARANETE.** Was, in ancient music, the name given, by several authors, to the third chord of each of the three tetrachords *fynnemenon*, *diazeugmenon*, and *hyperboleon*; a chord which some distinguished only by the name of the genus, wherein these tetrachords were used. So the third chord of the tetrachord *hyperboleon*, which is called *hyperboleon diatonos*, by *Aristoxenes* and *Alypius*, is called *paranete hyperboleon*, by *Euclid*.

**PARAPHONY.** Is, in ancient music, that kind of consonance which does not result from the same sounds, as the unison, which is called *homophony*; nor from the repique of the same sounds as the octave, which is called *antiphony*; but sounds really different, as the fifth and fourth, the only *paraphonies* admitted in this music: for, as to the sixth and third, the Greeks did not place them in the rank of *paraphonies*, not even admitting them as consonances.

**PARENTHESIS.** A sign of abbreviation in the note. It is a small stroke across at the tail of a minum or crotchet, to express its division into demi-crotchets, to preserve place, and prevent confusion. The parenthesis denotes, consequently, four demi-crotchets instead of a minum; or two instead of a crotchet. The *round* having no tail, cannot bear a parenthesis; but we may also make eight demi-crotchets from it, by abbreviations, by dividing it into two minums or four crotchets, to which we add the parenthesis. The copier should be careful to distinguish the figure of the parenthesis, which is only an abbreviation of that of the demi-crotchet, which shews a real power.

**PARHYPATE.**



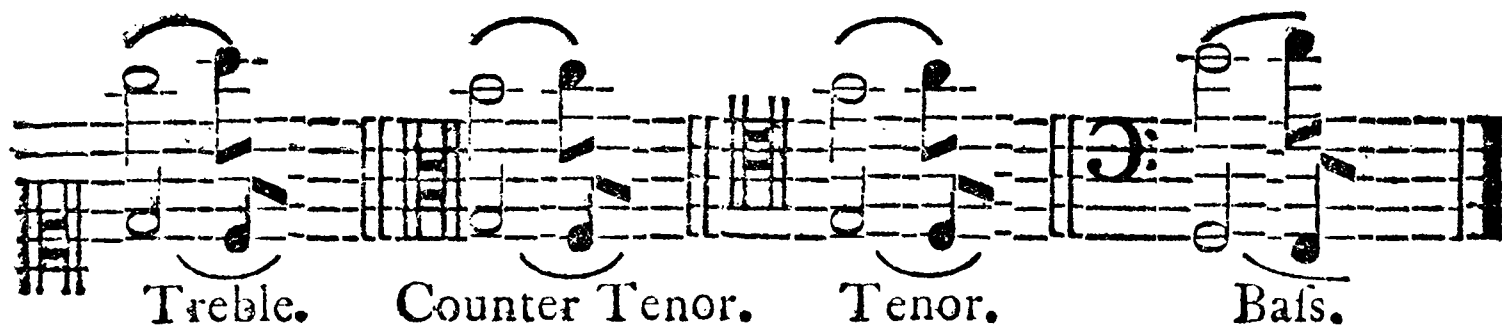
**PARHYPATE.** The name of the chord which immediately follows the hypate from sharp to flat. There were two parhypates in the diagram of the Greeks, viz. the parhypate hypaton, and the parhypate meson. This word parhypate signifies sub-principal, or bordering on the principal. (Vide Hypate.)

**PARODY.** An air of symphony, of which a singing air is formed by adjusting the words. In music, well-composed, the air is made on the words; and in the parody, the words are made on the air: All the couplets of a song, except the first, are kinds of parodies; and this is, in general, what is felt too much by the method of murdering the prosody. (Vide Song.)

**PART.** This is the name of every voice or separated melody, whose re-union forms the concert. To constitute a concord, two sounds must be heard at a time, at least, which a single voice cannot do. To form, in singing, a harmony, or a collection of concords, many voices are necessary. The air which belongs to each of these voices is called part; and the collection of all the parts of a same work, written below each other, is called partition. (Vide Partition.)

As a complete concord is composed of four sounds, there are also, in music, four principal parts, the sharpest of which is called treble, and is sung by the voices of women, children, or musici: The other three are the counter tenor, the tenor, and bass; which all belong to the voices of men.

#### Extent of the four Vocal Parts.



We may here see the extent of the voice in each of these parts, and the cleff which belongs to it. The white notes show the full sounds, where each part may reach to an equal height and an equal descent; and the demi-crotchets which follow, show the sounds, where the voice begins to be forced, and which it ought to form in passing only. The Italian voices almost always exceed this extent in ascending, particularly the trebles; but the voice becomes then a kind of *faucet*, and, whatever art it may use to disguise it, it is certainly so.

E e e

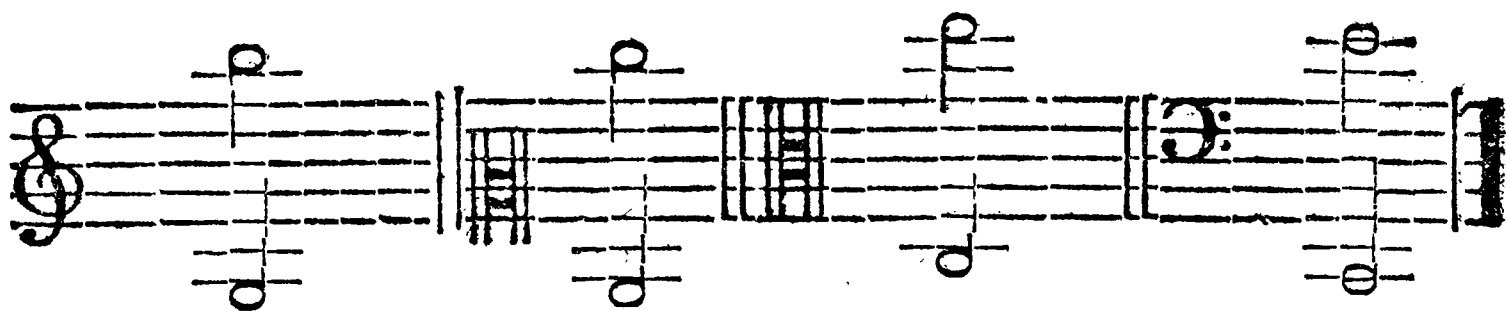
Some

Some one, or each of these parts, is sub-divided, when we compose with more than four parts. (Vide Treble, Tenor, Bass.)

In the first invention of the counter-point, there were at first only two parts; one of which was called tenor, and the other discant. Lastly, a third was added, which had the name of tripulum; and a fourth, sometimes called quadruplum, but more commonly mottetos. These parts were confounded very frequently one with the other: 'Tis but by little and little, that, extending themselves to sharp and flat, they have taken, with the most separated and most fixed diapasons, those names which they have at present.

There are also instrumental parts. There are even instruments, as the organ, the harpsichord, the viol, which may form several parts at a time. We divide also the instrumental music in four parts, which answer to those of the vocal music, and are called treble, fifth, tenor, and bass; but the treble is generally separated into two, and the fifth is united with the tenor, under the common name of viol.

#### Extent of the four Instrumental Parts.



Treble of the Violin. Tenor. Viola, or Fifth. Bass.

We here find the cleffs and extent of the four instrumental parts; but we must take notice, that the generality of instruments have not precise bounds above, and that they may be extended as far as possible, at the expence of the ears of the audience; whereas, in the lower parts, they have a fixed term which they cannot pass. This term is on the note which I have marked; but I have marked above only that which we may reach without loosening.

There are parts which ought to be sung by one voice alone, or played by a single instrument; and those are called reciting parts. Other parts are executed by several persons singing, or playing in unison; and are called concertant parts, or parts of chorus.

We call also part, the paper of music on which is written the separated part of each musician. Sometimes several sing or play on the same paper; but when each has his own, as is the general practice

practice in great pieces of music, then, tho' in this sense each concertant has his part, it cannot be said, in the other sense, that there are so many parts of concertants, whilst the same part is often doubled, trebled, and multiplied in proportion to the total number of executants.

**PARTITION.** A collection of all the parts in a piece of music, where we see, by the re-union of the corresponding staves, the harmony which they form together. We write, for this purpose, all the parts from staff to staff, the one below the other, with the cleff suitable to each, beginning by the sharpest, and placing the bass below all. We arrange them, as I have said at the word Copier, so that each measure of a staff be perpendicularly placed above or below the correspondent measure of other parts, and enclosed within the same bars prolonged from one to another, so that we may see, at first sight, all that should be understood at a time.

As in this disposition, one single line of music comprehends as many staves as there are parts, we confine all these staves by a stroke of the pen, which is called column, and which is drawn on the margin at the beginning of the line thus composed; then we re-begin, by a new line, to trace a new column, which is filled with the remainder of the same staves, written in the same order.

So, when we wish to follow a part, after having gone thro' the staff to the end, we do not pass to that which is immediately below, but we examine what rank the staff that we quit holds in the column; we seek in the column which follows the correspondent part, and we find therein the continuance of the same part.

The use of partitions is indispensable for composition. He also who conducts a concert, must have the partition under his eye, to see if each one follows his part, and to replace those who are in error. It is even useful to the accompanist to follow the harmony truly; but in regard to other musicians, we give generally his separate part to each, it being useless for him to see that which he does not execute.

There are, however, some cases where we join, in a separate part, other parts in similar partitions, for the convenience of the executants. First, in vocal parts we generally note the thorough bass in partition with each reciting part, either to prevent the singer from the trouble of reckoning his pauses in following the bass, or that he may himself accompany in repeating or reciting his part. Secondly, the two parts of a singing duet are marked in partition in each separate part, so that every singer, having

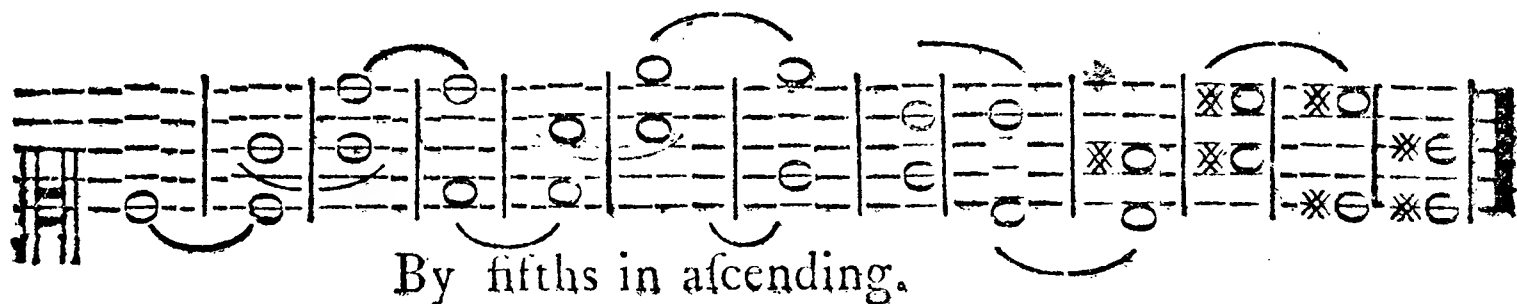
before the dialogue under his eye, may better enter into the spirit of it, and accord more easily with its counter-part. Thirdly, in the instrumental parts, we are cautious, in confined recitatives, to mark always the singing part in partition with that of the instrument; so that, in those alternatives of unmeasured airs and measured symphony, the symphonist may take the time of the rittornels true without hesitating or erring.

**PARTITION.** Is also, amongst organ and harpsichord makers, a rule for according the instrument, beginning by a chord or pipe of each touch, in the extent of an octave or rather more, taken near the middle of the keys; and on this octave or partition we accord all the rest afterwards. This is the method we follow for the formation of a partition.

On a sound given by an instrument, which I shall speak of at the word **Tone**, we accord in the unison or octave the **C** sol ut, which belongs to the cleff of that name, and which is found at the middle of the keys, or nearly. We then concord the sol, fifth sharp of that ut; then the re, sharp fifth of this sol; after which, we re-descend to the octave of this re, on the side of the first ut. We ascend to the fifth la, then again to the fifth mi. We re-descend to the octave of this mi, and continue in the same manner, ascending from fifth to fifth, and re-descending to the octave when we advance too much in sharp: When we have reached sol diesis, we stop.

We then retake the first ut, and accord its sharp octave; then the fifth flat of that octave fa, the sharp of this fa; next the si B flat, fifth of this octave; lastly, the mi B flat, fifth flat of this si B flat, the sharp octave from which mi B flat ought to form a true fifth, or nearly so with the la B flat or sol diesis, precedently accorded. When this happens, the partition is just, otherwise it is false; and this happens from not having exactly followed the rules explained at the word **Modification**.

#### Partition for the Concord of the Organ and Harpsichord.



Vide the above succession of concords which form the partition.

The partition being well formed, the remaining concord is very easy, since there is no longer any thing more than unisons and octaves to finish the concordance of the whole keys.

PASSACAILLE. A kind of chacon, whose air is more tender and the movement slower than in the ordinary ones. (Vide Chacon.)

The passacaille's of Armeda and Isa are celebrated in the French opera.

PASSAGE. An ornament by which a stroke of music is ornamented, in general rather short, which is composed of several notes or diminutions, which are sung or played very lightly. This is what the Italians call also passo. But every finger in Italy is obliged to understand the composition of the passi, whereas the generality of French fingers never remove from the notes, and form only those passages which are written for them.

PASSE PIED. The air of a dance of the same name, very common, whose measure is triple, is marked  $\frac{3}{8}$ , and beaten with

one time. Its movement is more lively than that of the minuet; the character of the air somewhat similar, except that the passe pied admits the syncope, and the minuet does not. The measure of each reprise ought to enter in this manner, in an equal number. But the air of the passe pied, instead of beginning on the stroke of the measure, should, in every reprise, begin on the demi-crotchet which precedes it.

PASTORAL. A rural opera, whose personages are shepherds, and whose music should be assorted to the simplicity of the taste and manners supposed to them.

A pastoral is also a piece of music formed on words relative to a pastoral condition; or an air which imitates that of the shepherds, which has its sweetness, tenderness, and nature: The air of a dance composed in the same character, is also called pastoral.

PASTORELLA. An Italian air in the pastoral genus. The French airs called pastorals, are generally of two times, and in the character of the musette. The Italian pastorals have more accent, more grace, as much sweetness, and less flatness. Their measure is always the 6—8th.

PATHETIC. A kind of dramatic and theatrical music, which tends towards the painting and touching the nobler passions, and more particularly grief and sorrow. All the expression in the French music, in the pathetic genus, consists in trained  
and

and enforced sounds, and in such a slowness of movement, that all sentiments of the measure are effaced. From thence it happens, that the French think every thing pathetic that is slow, and that all should be slow that is *pathetic*. They even have airs which become gay and trifling, or tender and pathetic, according as they are sung quick or slow. Such is an air so celebrated in Paris, to which the first character is given on these words, “*Il y a trente ans que mon cotillon traîne,*” &c. and the second on these, “*Quoi vous partez sans que rien vous arrête,*” &c. This is the advantage of French melody, it serves for whatever we chuse.—*Fiet avis, & cum volet, arbor.*

But the Italian music has not the same advantage: Each air, each melody has its character so appropriated, that it cannot be deprived of it. Its pathetic of accent and melody is felt in every kind of measure, and even in the most lively movements.

The French airs change their characters as the movement is pressed or slackened. Each Italian air has its movement so determined, that it cannot be changed without overthrowing the melody. The air, thus disfigured, does not change its character, it loses it: It is no longer an air; it is nothing in the character of the movement, neither can it be in the genus, in the mode, or in the harmony; since there are pieces equally pathetic in the three genera, in the two modes, and all imaginable harmony. The true pathetic is in the passionate accent, which is not determined by rules; but which the genius finds, and the heart feels, without the art being able to give its laws in any respects.

PAVANE. The air of an ancient dance of the same name, which has not been in use for some time. This name of pavane was given it because the figurants formed, in looking at each other, a kind of tail after the manner of the peacock's. The man made use of his cape and sword, which he used in this dance, and 'tis in allusion to the vanity of this attitude that they have formed the reciprocal verb *se pavaner*.

PAUSE. An interval of time, which, in the execution, ought to pass in silence by the part where the pause is marked. (*Vide Silence.*)

The name of pause may be applied to silences of different durations, but it is understood of a full measure. This pause is marked by a demi-bâton, which, leaving one of the interior lines of the staff, descends as far as the half of the space comprised between this line, and the line immediately below. When we have several pauses to mark, we should then make use of figures, which I have spoken of at the word *Rest*.

In



In regard to the demi-pause, which is equal to a minum, or the half of a four-timed measure, it is marked as the entire pause, and with this difference, that the pause belongs to a line above, and that the demi-pause is below.

We must take notice, that the pause is always equal to a just measure, in whatever kind of measure it may be, whereas the demi-pause has a fixed and invariable power; so that, in every measure, which is superior or inferior to a semi-breve, or two minims, we ought not to use the demi-pause to mark a demi-measure, but other silences which express its just powers.

In regard to the other kind of pauses known in our ancient music, under the name of *useless pauses*, because they were placed after the cleff, and which served not to express silences, but to determine the modes; this name of pauses was given them only thro' error; for which reason I transmit the reader to the words Rest and Mode, on that article.

**TO PAUSE.** To press on a syllable in singing: We ought not to pause but on long syllables, and never on the e mute.

**PEAN.** An air of victory amongst the Greeks, in honour of the gods, and particularly of Apollo.

**PENTACHORD.** Was, amongst the Greeks, sometimes an instrument of five chords, and sometimes an order or system formed of five sounds. It is in this last sense, that the fifth, or diapente, was sometimes called pentachord.

**PENTATONON.** Was, in ancient music, the name of an interval which we, at present, call superfluous sixth. (Vide Sixth.) It is composed of four tones, of a major semi-tone, and a minor; from whence it receives the name of pentatonon, which signifies five tones.

**PERFECT.** This word, in music, has several senses. When joined to the word concord, it signifies a concord which comprehends all the consonances without any dissonance. When joined to *cadence*, it expresses that which bears the sensible note, and the dominant falls on the final. When joined to the word consonance, it expresses a just and determined interval, which can neither be major or minor; so the octave, the fifth, and fourth, are perfect consonances; and these are the only ones. When joined to mode, it is applied to the measure, by an acceptation which is no longer known, and must be explained for the understanding of the ancient authors. They divided the time or mode, in reference to the measure, into perfect and imperfect; and, pretending that the ternary number was more perfect than the binary, which they proved by the trinity, they called perfect time or mode, that whose measure was of three times; and they marked it by an

an O or circle, sometimes single, and sometimes barred  $\Phi$ . The imperfect time, or mode, formed a measure of two times, and was marked by a divided O or C, sometimes single, and sometimes barred. (Vide Measure, Mode, Prolation, Time.)

PERFIDIA. A term of the Italian music, which signifies a certain affectation of always doing the same thing, and always following the same design, preserving the same movement, the same character of the air, the same passages, the same figures of the notes. (Vide Design, Air, Movement.) Such are the constrained basses, as those of the ancient chacons, and an infinity of methods in constrained accompaniment, or perfidiato, which depend on the caprice of the composers.

This term is not used in France; and I don't know if it has ever been written in this sense, otherwise than in Bropard's Dictionary.

PERIELESIS. A term of church-music. It is the interposition of one or more notes in the intonation of certain pieces of music, to assure their final, and specify to the choir that it belongs to them to take and pursue what follows.

The perielefis is otherwise called cadence, or small neuma, and is formed three ways: viz. First, by circumvolution; Secondly, by intercidence, or diatopse; or Thirdly, by simple duplication. (Vide those words.)

PERIPHERES. A term of the Greek music, which signifies a collection of notes, as well ascending as falling, and which return, as it were, on themselves. The peripheres was formed of the anacamptos and euthia.

PETTEIA. A Greek word which has nothing correspondent to it in our language, and which is the name of the last of the three parts into which the melopœa is sub-divided. (Vide Melopœa.)

The petteia is, according to Aristides Quintilian, the art of discerning the sounds which ought, or ought not, to be used, those which should be more or less frequent, and those by which we ought to begin or finish.

It is the petteia which constitutes the modes of music; it determines the composer in the choice of the genus of melody, relative to the movement which he would paint or excite in the soul, according to persons or occasions. In a word, the petteia, a part of the *hermosmenon* which regards the melody, is, in this respect, what the *mores* are in poetry.

We cannot see what moved the ancients to give it this name, unless they took it from *παιττεία*, their games at dice: the petteia in music being a rule to combine and arrange the sounds, as the game of dice is to arrange the pieces called *πέρτοι*, *calculi*.

PHILÆLIA.

**PHILÆLIA.** Was a kind of hymn amongst the Greeks, or song in honour of Apollo. (Vide Song.)

**PHONIC.** The art of treating and combining the sounds on the principles of the acoustic. (Vide Acoustic.)

**PHRASE.** A continuance of an air or harmony, which forms, without interruption, a sense more or less finished, and which is terminated on a stop, by a cadence more or less perfect.

There are two kinds of musical phrases. In melody the phrase is constituted by the air; that is, by a collection of sounds so disposed, whether in connection to the tone or movement, that they form the whole well united, which is resolved on an essential chord of the mode in which we are.

In harmony, the phrase is a regular continuance of concords all united together by dissonances, expressed or understood, which is resolved on an absolute cadence: according as the sense is more or less finished, the stop also is more or less perfect.

It is in the invention of musical phrases, in their proportions, in their inter-mixture, that the real beauties of music consist.

A composer, who punctuates and phrases well, is a clever fellow; a finger, who feels, marks well his phrases and their accent, is a man of taste: but he who can only see, and render the notes, the tones, times, and intervals, without entering into the sense of the phrases, however sure, however exact he may be, in every other respect, he is no more than a sapscull.

**PHRYGIAN.** The phrygian-mode is one of the four principal and most ancient modes of the Greek music. Its character was bold, lofty, impetuous, vehement, terrible: According to Athenæus also, the trumpets, and other military instruments, were sounded on the phrygian mode.

This mode, invented, they say, by the Phrygian Marsyas, is placed in the middle, between the lydian and doric, and its final is at a tone distance from that of each.

**PIECE.** A work in music of a certain extent, sometimes of a single division, sometimes of several, forming a concinnity and a totality, formed to be executed together. So, an overture is a piece, tho' composed of three divisions; and an opera itself is so, tho' divided by acts. But, besides this general acceptation, the word piece was also a more peculiar one in instrumental music, and only for certain instruments, such as the viol and harpsichord. For instance, we do not say, "A piece for the violin," but "*A sonata*;" and we never say a sonata for the harpsichord, but a piece.

**PINCH.** A kind of grace proper for certain instruments, and particularly the harpsichord; it is formed by striking alternately

F f f

the

the sound of the written note, with the sound of the inferior note, and observing to begin and finish by the note which bears the pinch. There is this difference between the pinch and trill, that the latter is struck with the superior note, and the pinch with the inferior. So the trill on ut is struck on the ut and re; and the pinch on the same ut is struck on the ut and fi. The pinch is marked, in the pieces of Couperin, with a small cross, very similar to that with which the trill is marked in ordinary music. Vide the signs of the one and the other, at the head of that author's pieces.

**TO PINCH.** Is to use the fingers, instead of the bow, to make the chords of an instrument sound. There are chord instruments which have no bow, and which are played only by pinching, such as the lute, guitar, &c. but we also sometimes pinch those where we generally use the bow, as the violin and violincello; and this method of playing, almost unknown in the French music, is marked in the Italian by the word *pizzicato*.

**PIZZICATO.** This word, written in the Italian music, denotes that we must pinch. (Vide To Pinch.)

**PLAGAL.** A plagal tone or mode. When the octave is found arithmetically divided, according to the ordinary language, that is, when the fourth is in flat, and the fifth in sharp, we say that the tone is plagal, to distinguish it from the authentic, where the fifth is in flat, and the fourth in sharp.

Let us suppose the octave A a divided into two parts by the dominant E. If you modulate between these two la's, in the space of an octave, and make your final on one of them, your mode is authentic. But if, modulating between these two la's, you make your final on the dominant mi, which is intermediary, or modulating from the dominant to its octave, you make the final on the intermediary tonic, in these two cases the mode is plagal.

Here then is all the difference by which we see that all the tones are really authentic, and that the distinction is only in the diapason of the air, and in the choice of the note on which we stop, which is always the tonic in the authentic, and ofteneft the dominant in the plagal.



The extent of the laws, and the division of the parts, has made these distinctions disappear in music, and they are no longer known but in that of the church. We count therein four plagal or collateral terms, viz. the second, fourth, sixth, and eighth, all those whose number is equal. (Vide Tones of the Church.)



**PLAY.** The action of playing on an instrument. We say full play, demi play, according to the stronger or sweeter manner of drawing the sounds from an instrument.

**TO**

**TO PLAY.** On instruments, is to execute airs of music on those instruments, particularly those proper to them, or airs noted for them. We say, To play on the violin, the bass, the haut-boy, the flute; To touch the harpsichord, the organ; To sound the trumpet; To finger the guittar, &c. But an affectation of these peculiar terms, borders on pedantry. The term *to play* becomes general, and suits insensibly every kind of instrument.

**PLICA.** A kind of ligature in our ancient music. The plica was a sign of hesitation, or slowness, (*Signum morositatis*, as *Muris* says). It was made by passing from one sound to another, from the semi-tone to the fifth, whether in ascending or falling, and there were four sorts: First, The plica, long, and ascending, is a quadrangular with a single ascendant stroke to the right, or

with two strokes, one of which on the right is the greatest . Secondly, The long descending plica has two descendant strokes, one of which on the right is the greater . Thirdly, The

short ascendant plica has its stroke ascending from the left, longer than that on the right . Fourthly, The descendant has the stroke descending from the left greater than that on the right .

**POINT.** This word, in music, signifies several different things.

There are, in our ancient music, six sorts of points, viz. Point of perfection, point of imperfection, point of increasing, point of division, point of translation, and point of alteration.

I. The point of perfection belongs to the ternary division. It renders every note perfect, that is followed by another note, less by the half of its figure; then, by force of the intermediary point, the precedent note is equal to the triple instead of the double of that which follows.

II. The point of imperfection, placed on the left of the longue, diminishes its powers, sometimes of a round, or semi-breve, sometimes of two. In the first case, we place a semi-breve between the longue and the point; in the second, we place two semi-breves at the right of two longues.

III. The point of increasing belongs to the binary division, and, between two equal notes, makes that superior which precedes the double of that which follows.

IV. The point of division is placed before a semi-breve, followed by a breve in the perfect time. It takes away a time from this breve, and makes it equal only to two semi-breves, instead of three.

V. If a semi-breve, between two points, should be followed by two or more breves in imperfect time, the second point transfers its signification to the last of these breves, renders it perfect, and makes its powers three times. This is the point of translation.

VI. A point between two semi-breves, placed themselves between two breves or squares in perfect time, takes a time from each of these breves, so that each breve is only equal to two semi-breves instead of three. This is the point of alteration.

This same point before a semi-breve, followed by two other semi-breves, between two breves or squares, doubles the powers of the last of these semi-breves.

As these ancient divisions of time into perfect and imperfect, are no longer used in music, all these significations of the point, which in reality are very confused, have been long abolished.

At present, the point, taken as a power of the note, is always equal to the half of that which precedes it. So, after the semi-breve, the point is equal to a minum; after the minum, to a crotchet; after the crotchet, to a demi-crotchet, &c. But this method of fixing the powers of a point is not certainly the best that might be imagined, and often causes useless embarrassments.

**ORGAN or STOP POINT.** Is a kind of point which I have spoken of at the word couronne. It is in relation to that kind of point that we generally call organ-points, those kinds of music, measured or not measured, written or not, and all those harmonic successions which pass on a single note of the bass always prolonged. (Vide Cadenza.)

When this same point, surmounted by a couronne, is written on the last note of an air, or a piece of music, it is then called final point.

Lastly, there is another kind of point also, called detached points, which are placed immediately above or below the head of the notes: Several are generally placed together, and this shows that the notes thus pointed should be marked by equal tones of the tongue, or bow, bold and detached.

**TO POINT.** Is, by means of the point, to render alternately long and short, the collection of notes naturally equal; such, for instance, as a continuance of demi crotchets. To point them on the note, we add a point after the first; a double demi-crotchet on the second; a point after the third; then a double crotchet; and so on. In this manner they keep, two by two, the same powers which they had before; but this power is unequally distributed between the two demi-crotchets, so that the first, or longue, has three quarters, and the second or breve, the other quarter. To point them in the execution, we pass them unequal,



equal, according to these same proportions, tho' they should even be marked as equal.

In the Italian music, all the demi-crotchets are always equal, unless they are marked as pointed. But in the French music we do not make the demi-crotchets exactly equal but in the four timed measure. In all the rest they are always pointed a little, unless it be written "Equal demi-crotchets."

**POLYCEPHALE.** A sort of nome for the flutes, in honour of Apollo.

The polycephale nome was invented, according to some, by the second Phrygian Olympus, and, according to others, by Crates, a disciple of the same Olympus.

**POLYMNASTIC.** A name for flutes, invented, according to some, by a woman named Polymnesté; and, according to others, by Polymnestus, son of Colophonian Meles.

**POSITION.** A part of the staff, where a note is placed to fix the degree of elevation of the sound which it represents.

The notes, in connection with the lines, have only two different positions, viz. on a line, or in a space; and these positions are always alternative when we move, or diatonically so. It is next the place which the line or space fills, and in connection with the cleff, which determines the real position of the note in a general key.

We call also position in the measure, that time which is marked in beating, in lowering, or fixing the hand, and which is generally called the stroke. (Vide Thesis.)

Lastly, we call position, in the playing of sleeve-instruments, the place where the hand is placed on the sleeve, according to the tone on which we play. When we have the hand at the height of the sleeve against the finger board, so that the index is placed at a tone of the chord à jour, it is the natural position. When we loosen, we reckon the positions by diatonic degrees, which the hand is distant from on the finger board.

**POWER OF THE NOTES.** Besides the position of the notes which marks its tone, they all have some determined figure, which marks its duration on time, that is, which determines the powers of the notes.

The invention of this is attributed to Jean de Muris, about the year 1330, for the Greeks had no other power of notes than the quantity of syllables, which alone must prove that they had no music purely instrumental. However, P. Merfenne, who had read the works of Muris, assures us that he saw nothing to confirm that opinion; and myself, after having read the greatest part, have not been more lucky than himself. Moreover, the examination of manuscripts, in the fourteenth age, which are in  
the

the French king's library, does not persuade us to judge that the different figures of notes, which are found therein, were of so new an institution. Lastly, it is difficult to be believed, that, during three hundred years and more, which have passed between Gui Aretin and Jean de Muris, the music should have been entirely deprived of the rhyme and measure, which are its fire and principal beauty,

However it may be, it is certain, that the different powers of the notes are of very ancient invention. I find, in the earliest times, five sorts of figures for them, without reckoning the ligature and point. These five are the maximum, the longue, the breve, the semi-breve, and minime. See Plate A. Fig. I.

All these different notes are black in the manuscript of Guillaume de Machault. It is only since the invention of painting, that they have thought of making them white, and adding new notes to distinguish the powers by the colour as well as the figure.

The notes, tho' figured the same, had not always the same equality. Sometimes the maximum was equal to two longues, or the longue to two breves; sometimes it was equal to three: this depended on the mode. (Vide Mode.) It was the same thing with the breve, in connection with the semi-breve, and this depended on the time. (Vide Time.) Lastly, it was similar with the semi-breve, in connection with the minime, and this depended on the prolation. (Vide Prolation.)

There were then double longue, perfect longue, imperfect longue, perfect breve, changed breve, major semi-breve, and minor semi-breve: seven different powers, to which four figures only answer, without reckoning the maximum or minime, a note of more modern invention. (Vide these different words.) There were also several other methods of modifying the different powers of these notes, by the point, the ligature, and position of the tail. (Vide Ligature, Plica, Point.)

The figures which were added in the continuance of these five or six first, were the crotchet, the demi-crotchet, the triple, and even quadruple demi-crotchet, which would make eleven figures in all; but as soon as it was the custom to separate the measures by bars, all the figures of notes were abandoned, which were equal to several measures, as the maximum, which equalled eight; the longue equal to four; and the breve to two.

The semi-breve, which equals an entire measure, is the longest power of notes remaining in use, and on which all the powers of the other notes have been determined; and as the binary measure, which had passed a long time for less perfect than the ternary, took lastly the treble, and served as the basis of all the  
other

other measures; so the sub-double division carried it on the sub-triple, which had also passed as the most perfect: sometimes the semi-breve was not equal to three minims, but two only; the minim two crotchets; the crotchets two demi-crotchets; and so on to the quadruple demi-crocket; unless in the cases of exception, where the sub-division has been preserved, and expressed by the cypher 3 placed above or below the notes.

The ligatures were also abolished at the same time, at least in regard to the changes which they produced in the power of the notes. The tails, in whatever manner they are placed, had no more than a fixed sense, and always the same; and lastly, the signification of the point was also bounded by the half of the note, which is immediately before it. Such is the condition in which the figures of the notes have been placed, in regard to their powers, and where they actually are.

The equivalent silences are explained at the article *Silence*.

The author of the dissertation on modern music, finds all this to be ill imagined. I have said, at the word *Note*, some one of the reasons which he alledges.

**PRELUDE.** A piece of symphony, which serves as an introduction and preparation to a piece of music. In which sense, the overtures of the opera are preludes; as also the ritournels, which are very often at the beginning of scenes or monologues.

Prelude is also a stroke in singing, which passes thro' the principal chords of the tone, to announce it, to verify if the instrument is in tune, &c.

**TO PRELUDE.** Is, in general, to sing or play some stroke of irregular fantasy, rather short, but passing by the essential chords of the tone, either to establish or to dispose the voice, or to place the hand well on an instrument before the beginning of a piece of music.

But on the organ and the harpsichord, the art of preluding is more considerable. It is to compose and play extempore pieces, filled with all that composition has most ingenious, in design, in fugue, in imitation, modulation, and harmony. It is chiefly in preluding, that great musicians, exempted from that extreme slavery to rules, which the eye of the critic imposes on them on paper, makes those transitions shine which ravish the ear of the audience. It is here that it is not sufficient to be a good composer, or to possess one's key well, or even to have a good and well exercised hand: We must, moreover, abound in that fire of genius, and that inventive ingenuity, which find and execute instantly the subjects most favourable to harmony, and most flattering to the ear. It is by this grand art of preluding that excellent organists shine in France; such as the Sieurs Claviere  
and

and Daquin, who were still surpassed by *Monf. le Prince d'Ardore*, ambassador of Naples, who, for vivacity of invention, and force of execution, eclipses the most illustrious artists, and causes the admiration of connoisseurs at Paris.

**PREPARATION.** The act of preparing the dissonance. (*Vide To Prepare.*)

**TO PREPARE.** To prepare a dissonance, is to treat it in harmony, so that, by favour of that which precedes, it may be less rough to the ear than it would be without this precaution: According to this definition, every dissonance must be prepared. But when, to prepare a dissonance, we require that the sound which forms it should have made a consonance before, in that case, there is fundamentally only one dissonance which is prepared, viz. the seventh. This preparation, moreover, is not at all necessary in the sensible concord, because then the dissonance, being characteristic, and in concord and mode, is sufficiently announced; the ear attends to it, admits it, and is neither deceived on the concord, or its natural progress. But when the seventh is heard on the fundamental sound, which is not essential to the mode, we ought to prepare it to suit every equivocation, to hinder the ear of the audience from inattention; and as this concord of seventh is overthrown and combined in several methods, from thence also arise different methods, apparently of preparation, which at bottom, however, always return to the same.

We must consider three things in the practice of dissonances, viz. the concord which precedes the dissonance, that wherein it is found, and that which follows it. The preparation regards only the two others. For the third, *vide To Save.*

When we would prepare a dissonance regularly, we must chuse to arrive at the concord, such a continuance of the fundamental bass, that the sound, which forms the dissonance, may be a prolongation in the strong time of a consonance, struck on a weak time in the precedent concord, which we call to syncopate.

From this preparation result two advantages; viz. I. That there is necessarily an harmonic connection between the two concords, since the dissonance itself forms that connection; and secondly, That this dissonance, being only the prolongation of a consonant sound, becomes much less rough to the ear than it would be on a sound fresh struck. Herein, moreover, is all that is sought in the preparation. (*Vide Cadence, Dissonance, Harmony.*)

We see, by what I have just said, that there is no part particularly destined in the preparation of the dissonance, than that itself which makes it heard; so that if the treble sounds the dissonance,

dissonance, it is dependant on it to syncopate ; but if the dissonance is in the bass, the bass must syncopate. Tho' there is nothing that can be more simple, the masters of composition have terribly confused it. There are dissonances never prepared, such as the sixth added : others which are prepared but seldom, such as the diminished seventh.

**PRESTO**, This word, written at the head of a piece of music, denotes the quickest and most animated of the five principal movements established in the Italian music. Presto signifies quick. Sometimes we express a movement still quicker by the superlative prestissimo.

**TO PRICK NOTES**. Is to write music with characters destined for that purpose, and which are called notes. (Vide Notes.)

There is, in the method of marking music, an elegance of copy, which consists less in the beauty of the note, than in a certain exactness to place all the signs suitably, and which renders music, thus *marked*, much easier to execute ; which has been explained at the word Copist.

**PRIMA INTENZIONE**. A technical Italian word, which has no correspondent in French, and which wants none, since the idea which this word expresses is not known in the French music. An air, a piece *di prima intenzione*, is that which is formed on a sudden, quite entire, and with all its parts in the mind of the composer, as Pallas came completely armed from the brain of Jupiter. The pieces, *di prima intenzione*, are such uncommon strokes of genius, all whose ideas are so narrowly united, that they form, as it were, only one alone, and cannot be presented to the mind without the other. They are similar to those long periods of Cicero, tho' eloquent, the sense of which suspended during all their duration, is determined only at the last word, and which, consequently, have formed only one single thought in the mind of the author. There are, in arts, inventions produced by such efforts of genius, and all the reasonings of which, intimately united one with the other, cannot be formed successively, but are necessarily offered to the mind, all at the same time, since the first, without the last, would form no sense. Such is, for instance, the invention of that prodigious machine of the *Métier à bas*, which may be looked on, says the philosopher who has described it in the Encyclopædia, as a single and only reasoning, the fabrication of whose work is the conclusion. These kinds of operations of the understanding, which are difficultly explained, even by the analysis, are prodigies for reason, and are only conceived by a genius capable of producing them : Its effect is always proportioned to the labours of the brain which they

have cost ; and, in music, the pieces di prima intenzione, are the only ones which can cause extasies, delights, those transports of the soul which convey the hearer from himself ; we feel them, we enter into them at a moment ; connoisseurs can never be deceived in them. At the end of one of these sublime pieces, run through one of these extempore airs. All whose phrases have been composed one after the other, or are only one phrase changed into different tones, and whose accompaniment is only a collection made without labour, and with whatever taste this last piece may be composed, if the remembrance of the other leaves you any attention to bestow on it, it will be only to be frozen, as it were, and impatient for it. After an air di prima intenzione, every other music loses its effect.

**PROGRESSION.** A continued proportion, prolonged beyond three times. (Vide Proportion.) The continuances of equal intervals are all in progression, and it is in identifying the neighbouring terms of different progressions, that we are able to complete the diatonic and chromatic scale, by means of the modification. (Vide Modification.)

**PROLATION.** Is, in our ancient music, a method of determining the power of semi-breve notes on that of the breve, or of the minime's on that of the semi-breve. This prolation was marked after the cleff, and sometimes after the sign of the mode, by a circle or demi-circle, punctuated or not punctuated, according to the following rules.

Considering the sub-triple division always as the most perfect, the prolation was divided into perfect and imperfect, and each into major or minor, in the same manner as for the mode.

The perfect prolation was for the ternary measure, and was marked by a point in the circle when it was major, that is, when it denoted the connection of the breve to the semi-breve ; or by a point in a demi-circle when it was minor, that is, when it expressed the connection of the semi-breve with the minime. See Fig. II. and Fig. III. Plate I.

The imperfect prolation was for the binary measure, and was marked as the time by a single circle when major, or by a demi-circle when minor. See Fig. IV. and Fig. V. Plate I.

Some other signs have been since added to the perfect prolation.

Besides the circle and demi-circle, they made use of the cypher  $\frac{3}{1}$  to express the power of three semi-breves, for that of the breve, and of the cypher  $\frac{3}{2}$ , to express the powers of three minims for the semi-breve.



At present, all prolations are abolished. The sub-double division has gained the point over the sub-ternary; and we must have recourse to exceptions and particular signs, to express the division of any note into three others that are equal. (*Vide Power of the Notes.*)

We find, in the Academical Dictionary, that prolation signifies trill. I have never heard, or read, any where else, that this word had such a sense.

**PROLOGUE.** A kind of smaller opera, which precedes the greater, announces it, and serves as its introduction. As the subject of prologues is generally elevated, marvellous, magnificent, and full of praises, its music should be brilliant, harmonious, and more tender than pathetic. We ought not to drain, in the prologue, the grand movements we would excite in the piece; and the musician must, without being flat and tiresome in the delivery, still know how to manage so as to shew himself interesting and fresh in the body of the work. This gradation is neither felt, or rendered by the generality of composers, but it is still necessary, tho' difficult. The best way would be, not to be in want of it, and to suppress entirely the prologues, which only tire and hurry the spectator, or injure the interest of the piece, by employing the methods of interesting before-hand. The French opera's are the only ones, which have preserved prologues: They, moreover, suffer them only because they dare not murmur against the flatness which they contain.

**TO PROLONG A SOUND.** Is, in singing, to manage the voice, so that we may continue it a long time without taking breath. There are two methods of prolonging a sound: the first, in sustaining it always equally, which is generally done on lute's, and laboured accompaniment; the second, in strengthening it, which is more used in passages and trills. The first method requires more justness, and the Italians prefer it: the second has more eclat, and pleases the French more.

**PROPERLY.** To sing or play properly, is to execute the melody with the ornaments suitable to it. This melody being nothing by the force only of the sounds, and having no character by itself, takes one only by the affected turnings given to it in its execution. These turnings, taught by the masters of the taste in singing, are what are called the graces of the French music. (*Vide Graces.*)

**PROPORTION.** An equality between two connections. There are four kinds of connection, viz. the arithmetical, geometrical, harmonic, and counter-harmonic. We must have the idea of these different proportions to understand the calculations, with which authors have loaded the theory of music.

Let there be four times or quantities,  $a, b, c, d$ ; if the difference of the first term  $a$  to the second  $b$ , is equal to the difference of the third  $c$  to the fourth  $d$ , these four terms are in arithmetical proportion: such are, for instance, the following numbers, 2, 4, 8, 10.

If, instead of having regard to the difference, we compare these terms by the method of containing, or being contained; if, for instance, the first  $a$  is to the second  $b$ , as the third  $c$  is to the fourth  $d$ , the proportion is geometrical: such is that which these four numbers form, 2, 4, 8, 16.

In the first example, the excess by which the first term 2 is surpassed by the second 4, is 2; and the excess by which the third 8 is surpassed by the fourth 10, is also 2: these four terms are then in arithmetical proportion.

In the second example, the first term 2 is the half of the second 4; and the third term 8 is also the half of the fourth 16: these four terms are then in geometrical proportion.

A proportion, whether arithmetical or geometrical, is called inverse or reciprocal; when after having compared the first term with the second, we do not compare the third with the fourth, as in direct proportion, but the fourth with the third, and the connection being thus taken, are found equal. These four numbers, 2, 4, 8, 6, are in reciprocal arithmetical proportion; and these four, 2, 4, 6, 3, are in reciprocal geometrical proportion.

When, in a direct proportion, the second term, or consequence of the first connection, is equal to the first term, or antecedent of the second connection, these two terms being equal, are taken for the same, and written only once instead of twice. So in this arithmetical proportion, 2, 4, 4, 6, instead of writing the number 4 twice, we write it but once, and the proportion is placed thus,  $\div 2, 4, 6$ .

In the same manner, in this geometrical proportion, 2, 4 :: 4, 8, instead of writing 4 twice, we write only one, in this manner,  $\div 2, 4, 8$ .

When the consequence of the first connection serves as antecedent to the second, and the proportion is placed in three times, this proportion is called thorough, because, between the second references which form it, there is no interruption found therein, when it is placed in four times.

These three terms  $\div 2, 4, 6$ , are in thorough arithmetical proportion, and these other three  $\div 2, 4, 8$ , are in thorough geometrical proportion. When a thorough proportion is prolonged, that is, when it has more than three times, or two equal references, it is called progression.

So these four terms, 2, 4, 6, 8, form an arithmetical progression, which may be prolonged as much as we please, in adding  
the

the difference to the last term; and these four terms, 2, 4, 8, 16, form a geometrical progression, which may be prolonged in the same manner, as much as we please, in doubling the last term, or in general, by multiplying it by the quotient of the second term, divided by the first, which quotient is called the exposition of the connection or progression.

When three terms are such as the first to the third, as the difference of the first to the second is to the difference of the second to the third, these three terms form a kind of proportion, called harmonic. Such are, for instance, these three numbers, 3, 4, 6; for as the first 3 is the half of the third 6; in the same manner the excess 1 of the second on the first, is the half of the excess 2 of the third on the second.

Lastly, when three terms are such, that the difference of the first to the second is in the difference of the second to the third, not as the first is to the third, as in harmonic proportion, but, on the contrary, as the third is to the first, then these three terms form together a kind of proportion, called counter harmonic proportion. So these three numbers, 3, 5, 6, are in counter harmonic proportion.

Experience has shewn, that the connections of three chords, founding the perfect major concord third together, formed between themselves, the sort of proportion which, on that account, was called harmonic; but this is a pure propriety of numbers, which has no affinity with the sounds, or with their effect, on the auditive organ; so the harmonic and counter harmonic proportion belong no more to the art than arithmetical proportion, or the geometrical, which are even of much greater utility. We must always think, that the proprieties of abstracted quantities are not proprieties of sounds; and not seek, in imitation of Pythagoreans, some silly chimerical analogies between things of different natures, which have only connections of convention between them.

**PROPRIETY.** The execution of the air with the ornaments suitable to it, and which are called graces in fingering. (Vide Graces.)

**PROSLAMBANOMENOS.** Was, in ancient music, the flattest sound of all the system, a tone below the hypate hypaton.

This name signifies super-numerary, acquired or added, because the chord which renders that sound was added below all the tetrachords to continue the diapason, or the octave with the mesis; and the diapason or double octave, with the nete-hyperboleon, which was the sharpest chord of all the system. (Vide System.)

**PROSODIAC.** The prosodiac nome was sung in honour of Mars, and was, they say, invented by Olympus.

**PROSODY.**

**PROSODY.** A kind of nome for flutes, and peculiar to the cantics which were sung, amongst the Greeks, at the entrance of sacrifices. Plutarch attributes the invention of prosodies to Clonas, of Tegæa, according to the Arcadians, and Thebes, according to Boetius.

**PROTESIS.** The pause of a long time in ancient music, with the difference of the limma, which was the pause of a short time.

**PYTHAGOREANS.** The name of one of the two sects into which the Theoricians were divided in the Greek music: it took its name from Pythagoras, its chief, as the other sect took its name from Aristoxenes.

The Pythagoreans fixed all the intervals, as well consonant as dissonant, by the calculation of connections. The Aristoxenians, on the contrary, said that they appealed to the judgment of the ear. But, at bottom, their dispute was only a dispute of words; and under more simple denominations, the halves or fourths of the tone, amongst the Aristoxenians, either signified nothing, or required no calculations less composed than those of the limma, comma's, and apotomes, fixed by the Pythagoreans. In proposing, for instance, to take the half of a tone, what did an Aristoxenian propose? Nothing on which the ear could place a fixt judgment. Either he knew not what he would say, or proposed to find a medium proportionate between 8 and 9. This proportionate medium is the square root of 72, and this square root is an irrational number, there was no other possible method of assigning this half of the tone but by geometry; and this geometrical method was not more simple than the references, from number to number, calculated by the Pythagoreans. The simplicity of the Aristoxenians was only apparent; it was a simplicity similar to that of the system of *Monf. Boisgelou*, of which I shall speak hereafter. (*Vide Interval, System.*)

## Q.

**QUADRUPLE DEMI CROTCHET.** A note of music, equal to the fourth of a demi-crotchet, or the half of a double demi-crotchet. Sixty-four quadruple demi-crotchets are necessary for a four timed measure; but a measure is seldom filled, or even a time, with that kind of note. (Vide Power of the Notes.)

The quadruple demi-crotchet is almost always united with other notes of equal or different powers, and is thus figured:




or





It takes its name from four strokes, or parenthesis's, which it bears.

**QUANTITY.** This word, in music as well as in prosody, does not signify the number of notes or syllables, but the relative duration which they ought to have. The quantity produces the rhyme, as the accent produces the intonation. From the rhyme and intonation results the melody. (Vide Melody.)

**QUARREE or BREVE.** A kind of note formed thus, , and which takes its name from its figure. In our ancient music, it was sometimes equal to three semi-breves, and sometimes two, accordingly as the prolation was perfect and imperfect. (Vide Prolation.)

The quarree, however, is always equal to two semi-breves, but it is very seldom used.

**QUARTER OF A MINIME REST.** A power of silence, which, in the Italian music, is figured thus, , in the French ; and which denotes, as its name expresses, the fourth part of a minime rest, that is, the equivalent of a double demi-crotchet. (Vide Minime Rest, Power of the Notes.)

**QUARTER OF A TONE.** An interval introduced into the enharmonic genus, by Aristoxenes, and whose computation is *sordato*. (Vide Enharmonic, Scale, &c.)

We have neither in the ear, or in harmonic calculations, any principle which can furnish us the exact interval of the quarter of a tone; and when we consider what geometrical operations are necessary to determine it on the monochord, we are nearly tempted to suspect that we have, perhaps, never toned, and never shall tone the quarter of a tone just, either by the voice, or any instrument.

The musicians call also the quarter of a tone, the interval which from two notes at a tone from each other, is found between the B flat of the superior, and the diesis of the inferior,

an interval which the modification causes to vanish, but which the calculation may determine.

This fourth of a tone is of two kinds, viz. the major enharmonic, in the connection of 576 to 625, which is the complement of two semi-tones to the major tone; and the enharmonic minor, in the computation of 125 to 128, which is the complement of the two same semi-tones minor with the minor tone.

**QUATUOR.** This is the name given to pieces of vocal and instrumental music, which are of four reciting parts. (*Vide Parts.*) There are no true quatuors, or they are to no purpose. In a good quatuor, the parts must be almost always alternative, because, in every concord, there are only two parts, at the most, which form an air, and which the ear can distinguish at the same time: the two others are only as a filling up; and we ought never to place any filling up in a quatuor.

**QUINQUE.** A name given to pieces of vocal and instrumental music, which are of five reciting parts. Since there is no true quatuor, for a much better reason, there is no veritable quinque. Each of these words, tho' passed from the Latin to the French, are pronounced as in Latin.

**QUICK.** In Italian *Presto*. This word, at the head of an air, denotes the quickest of all the movements; and it has after it only its superlative *prestissimo*, or *presto assai*, or very fast.

## R.

**RANZ DES VACHES.** A celebrated air among the Swiss, and which their young herdsman play on the bag-pipe, while they keep their herds on the mountains. (*Vide Music.*)

**RAVALEMENT.** The keys, or system a ravalement, is that which, instead of being bounded by four octaves, as the ordinary key, is extended to five, adding a fifth below the ut, a fourth above it, and by this means comprehending five octaves between the two fa's. The word ravalement comes from the organ and harpsichord makers, and those are the only instruments on which we can comprehend five octaves. The sharp instruments pass even the ut seldom above, without playing false; and the concord of the basses does not permit them to pass the ut below.

**RE.** A syllable by which we sol fa the second note of the gamut. This note, in natural, is expressed by the letter D. (*Vide D and Gamut.*)

**RECHERCHE.**



**RECHERCHE.** A kind of prelude, or fantasy on the organ or harpsichord, in which the musician affects to search for, and gather, the principal strokes of harmony and music, which have been executed, or which are going so to be in a concert. This is ordinarily made immediately without preparation, and, consequently, requires a great deal of skill.

The Italians call *recherches*, or cadences, those *arbitrii*, or organ points, which the singer takes the liberty of making on certain notes of his part, suspending his part, passing thro' the different chords of the mode, and even in going out sometimes, according to the different ideas of his genius, and the turns of his throat, whilst all the accompaniment ceases, till he thinks it proper to finish.

**RECITAL.** The general name of all that is sung with a single voice. We say, a recital of the bass, a recital of counter-tenor. This word is applied, in this sense, to instruments: We say, a recital of the violin, the flute, the hautboy. In a word, *to recite*, is to sing or play alone on any part, in opposition to the choir, or symphony in general, wherein several sing or play the same part in unison.

We may also call recital, the part wherein the principal subject reigns, and of which all the rest are only the accompaniment. They have placed, in the Dictionary of the French Academy, "The recitals are not at all subject to the measure as the airs." A recital is often an air, and, consequently, measured.—Quere, Can the Academy, perhaps, have confounded the recital with the recitative?

**RECITING.** A reciting part is that which is sung by a single voice, or played by a single instrument, in opposition to the parts of symphony and chorus, which are executed in unison by several concertants. (Vide Recital.)

**RECITATION.** The action of reciting music. (Vide *To Recite*.)

**TO RECITE.** Is to sing or play alone in music. To execute a recital. (Vide Recital.)

**RECITATIVE.** A discourse recited in a musical and harmonious tone. It is a method of singing which approaches nearly to speech, a declamation in music, in which the musician should imitate, as much as possible, the inflexions of the declaiming voice. This air is called recitative, because it is applied to narration, recital, and is used in the dramatic dialogue. They have placed in the Dictionary of the Academy, that the recitative should be uttered distinctly: There are recitatives which should be so, and others which should be sustained.

The perfection of the recitative depends much on the character of the language; the more the language is accented and melo-

dious, the more the recitative is natural, and draws near to real discourse : it is only the accents marked in a language truly musical ; but in a heavy, flat, and unaccented language, the recitative is only notes, cries, psalmody. The words are no longer discovered. Here, I think, is the only true principle, drawn from the nature of the thing, on which we ought to fix, to judge of the recitative, and compare that of one language to another, viz. that the best recitative is that wherein we sing the least.

Amongst the Greeks, all their poetry was in recitative, because, the language being melodious, it was sufficient to add to it the cadence of the metre, and the sustained recitation, to render this recitation entirely musical ; from whence it comes, that those who verify call it singing. This custom, having ridiculously passed into other languages, causes the poet to say, I sing, when there is no singing in the case. The Greeks could sing in speaking ; but amongst us we must either sing or speak : we cannot do both at the same time. 'Tis this very distinction which has rendered the recitative necessary for us. The music predominates too much in our airs ; the poetry is almost forgotten ; our lyric dramas are too much sung to be so always. An opera, which should be only a collection of airs, would tire almost as much as a whole single air of the same length. We must divide and separate the airs by conversation ; but this conversation should be modified by music. The ideas should change, but the language must continue the same. This language being once given, to change it in the course of a piece, would be to speak half French, half German. The passage from discourse to the air, and reciprocally, is too unequal. It disgusts nature and the ear at the same time ; true interlocution should speak or sing ; they cannot do alternatively one and the other. The recitative, moreover, is the method of union between the air and the words ; it is that which separates and distinguishes the airs ; which quiets the ear, astonished at what preceded ; and disposes it to taste what follows. Lastly, 'tis by assistance of the recitative, that what is only dialogue, recital, narration in the drama, may be rendered without going out of the given language, and without displacing the eloquence of the airs.

The recitative is not measured in singing. This measure, which characterises the airs, would spoil the reciting declamation. It is the accent, whether grammatical or oratorical, which ought alone to direct the slowness or rapidity of the sounds ; in the same manner also their elevation or lowering. The composer, in making the recitative on some determined measure, has nothing in view but to fix the correspondence of the thorough bass and music, and to denote, nearly, how the quantity of the syllables should be mark'd, cadenc'd, and the verses scann'd. The  
Italians

Italians never make use, for their recitative, of any but the four-tim'd measure; but the French intermix their's of all sorts of measures.

These last number the cleff also with all kinds of transpositions, as well as for the recitative as for the airs, which the Italians do not; but they always mark the recitative in natural: The quantity of modulations with which they are loaded, and the promptitude of the transitions, causing that the transposition suitable to one tone is not so to those in which it passes, would multiply the accidents on the same notes too much, and would render the recitative almost impossible to follow, and very difficult to be marked.

In effect, it is in the recitative that we ought to make use of the most laboured harmonic transitions, and the most ingenious modulations. The airs, offering only a sentiment, and an image, enclosed, lastly, within some unity of expression, do not permit the composer to be distant from the principal tone; and if he wished to modulate much in so short a space, he would offer only murdered phrases, without union, taste, or melody: A fault very common in the French and German music.

But in the recitative, where the expressions, the sentiments, the ideas, vary every instant, we ought to make use of modulations equally varied, which may represent, by their contextures, the successions expressed by the discourse of the recitant. The inflexions of the speaking voice are not bounded by musical intervals. They are uncontrouled, and impossible to be determined. Not being able then to fix them with a certain precision, the musician, to follow the words, should, at least, imitate them as much as possible; and for the purpose of conveying to the mind of the audience the idea of intervals and accents, which cannot be expressed in notes, he has recourse to transitions which suppose them: If, for instance, the interval of the major or minor semi-tone is necessary, he will not mark them; he cannot: but he will give you the idea of them by the assistance of an enharmonic passage. A motion of the bass is often sufficient to change all the ideas, and to give the recitative that accent and inflexion, which the actor is unable to execute.

In regard to what remains, as it is necessary for the audience to be attentive to the recitative, and not the bass, which ought to form its effect without being listened to, it thence follows, that the bass should continue in the same note as long as possible; for it is in the moment that its note changes, and it strikes another chord, that it is attended to. These moments being uncommon and well chosen, do not use any great effect; they remove the spectator less frequently, and leave him more easily

in the persuasion, that he hears speaking only, tho' the harmony should continually act on his ear. Nothing denotes a worse recitative than these basses perpetually leaping, which run from demi-crotchet to demi-crotchet after this harmonic succession, and form, under the melody of the voice, another kind of melody more flat and tiresome. The composer should know the art of prolonging and varying his concords on the same note of the bass, and change them only in the moment when the inflexion of the recitative, becoming more lively, receives greater effect by this change of bass, and prevents the audience from taking notice of it.

The recitative should serve only to unite the contexture of the drama, to separate and give weight to the airs, to prevent the weariness which the continuance of a great noise would cause; but however eloquent the dialogue may be, however energetic and ingenious the recitative may be, it ought to continue no longer than is necessary to its object, because it is not in the recitative that the charm of music acts, and that the opera was instituted only to display this charm. Moreover, it is in this that the error of the Italians lies, who, by the extreme length of their scenes, make an ill use of this recitative. However beautiful it may be in itself, it tires, because it continues too long; and that it is only to hear the recitative that we go to the opera.

Demosthenes speaking the whole day, would tire in the end; but it would not thence follow, that Demosthenes was a tiresome orator. Those who say that the Italians find their recitative bad, say it very frankly; since, on the contrary, there is no part in music of which the connoisseurs make such great account, and on which they are so difficult. It is even sufficient to excel in this single part, were we but middling in every other, to be raised in that country to the rank of the most illustrious artist, and the celebrated Porpora, was only immortalised by that method.

I add, that tho' we do not seek in general in the recitative for the same energy of expression as in the airs, it is still found sometimes; and when it is found, it forms a greater effect than in the airs themselves. There are good opera's, where some principal piece of recitative excites the admiration of connoisseurs, and an interest in the whole spectacle: The effect of these pieces shows sufficiently that the fault imputed to the genus, lies only in the method of treating it.

Mons. Tartini relates having heard, in 1714, at the opera-house in Ancona, a piece of recitative of one single line, and without any accompaniment but the bass, form a prodigious effect, not only on the professors of the art, but on all the spectators. "It was, says he, at the beginning of the third act. At  
" each

“ each representation, a profound silence amongst the whole audience announced the approach of this terrible piece. The faces grew pale; they felt themselves shiver; and they beheld each other with a kind of terror; It was neither tears nor groans; it was a certain sensation of rough and disdainful rigour, which troubled the soul, confined the heart, and froze the blood.” We should transcribe the original passage: these effects are so little known on our theatre, that our language is almost incapable of expressing them.

L'Anno quatordecimo del Secolo presente nel dramma che si rappresentava in Ancona, v'era su'l principio dell' Attotterzo una riga di recitativo non accompagnato da altri stromenti che dal basso: per cui, tanto in noi professori, quanto negli ascoltanti, si destava una tal e tanta commozione di animo, che tutti si guardavano in faccia l'un l'altro, per la evidente mutazione di colore che si faceva in ciascheduno di noi. L'Effetto non era di pianto (mi ricordo benissimo che le parole erano di sdegno); ma di un certo rigore e freddo nel sangue, che di fatto turbava l'animo. Tredecim volte si recito il dramma, e sempre segui l'effetto stesso universalmente: di che era segno palpabile il sommo previo sdenzio, con cui l'uditorio tutto si apparecchiava a goderne l'effetto.

**RECITATIVE ACCOMPANIED.** Is that to which, besides the thorough bass, is added an accompaniment of violins. This accompaniment, which cannot by any means be syllabic, together with the rapidity of the utterance, is generally formed of long notes sustained on entire measures; and we write, for this purpose, on all the parts of the symphony, the word *softenuto*, chiefly in the bass, which, without that, would strike only flat and detached strokes at each change of the note, as in the ordinary recitative; whereas we must, in that case, prolong and sustain the sounds, the whole power of the notes. When the accompaniment is measured, this obliges us to measure the recitative, which then follows and accompanies in some kind of accompaniment.

**RECITATIVE MEASUR'D.** These two words are contradictory. Every recitative, wherein we find any other measure than that of the verses, is no longer recitative. But an ordinary recitative is often changed on a sudden in music, and takes from measure and melody, whatever is marked in writing on the parts *a tempo*, or *a battuta*. This contrast, this well managed change, produces surprising effects. In the course of a recitative, a tender and plaintive reflexion takes the musical accent, and is displayed instantly by the sweetest inflexions of the music; then, being cut in the same manner by some other lively and impetuous reflexion, it is roughly interrupted to take, at a moment, the whole utterance

ance of the words. These short and measured pieces, accompanied, in general, with flutes and horns, are not uncommon in grand Italian recitatives.

The recitative is also measured when the accompaniment with which it is charged, being tuneful and measured itself, obliges the recitant to conform his voice to it. It is less than a measured recitative, than, as I have said above, a recitative accompanying the accompaniment.

**RECITATIVE CONFIN'D.** Is that which, being intermixt with rittornels and strokes of symphony, confines, as it were, the recitant and orchestra, one towards the other, so that they ought to be attentive in a mutual degree. These alternative passages of recitative and melody, clothed with all the eclat of the orchestra, are the most touching, most ravishing, and most energetic parts of the modern measure. The actor agitated, transported with a passion which does not suffer him to go through his speech, is interrupted, breaks off, makes a stop, during which time the orchestra speaks for him; and these silences, thus filled, affect the audience infinitely more than if the actor himself spoke all that the music makes them understand. Thus far, the French music has not been able to make any use of the confined recitative. They have endeavoured to give some idea of it in a scene, *Du Devin du Village*; and it appears, that the public has found, that a situation, when lively and thus managed, became much more interesting. What would not the confined recitative do in grand and pathetic scenes, if so great an acquisition can be drawn from it in a rustic and jocular genus.

**RECLAME or CATCH WORD.** Is, in church-music, that part of the answer which is re-begun after the verse. (Vide Answer.)

**REDOUBLED.** We call a redoubled interval, every simple interval carried in its octave. So the thirteenth, composed of a sixth and octave, is a redoubled sixth; and the fifteenth, which is an octave added to the octave, is a redoubled octave. When, instead of an octave, we add two, the interval is triple; and quadruple when three are added.

Every interval, whose name passes seven in number, is always at least redoubled. To find the simple of any redoubled interval, throw out seven as often as you can from the name of this interval, and the remainder will be the name of the simple interval. From thirteen throw out seven, six remains; so the thirteenth is a redoubled sixth. From fifteen take away twice seven, or fourteen, one remains; so the fifteenth is a tripled unison or doubled octave.

Reciprocally,



Reciprocally, to redouble any simple interval, add to it seven, and you will have the name of the same redoubled interval. To triple a simple interval, add to it fourteen. (*Vide Interval.*)

**REDUCTION.** A collection of notes diatonically descending. The term, as well as its contrary deduction, is no longer used but in church-music.

**RELATION.** A connection which the two sounds that form an interval have with one another, considered by the genus of that interval. The relation is just when the interval is just, major or minor: it is false, whether superfluous or diminished. (*Vide Interval.*)

Amongst false relations, we consider as such in harmony, those only whose two sounds cannot enter into the same mode. So the triton, which in melody is a false relation, is not so in harmony but when one of the sounds which form it is a chord unknown to the mode. The diminished fourth, tho' banished from harmony, is not always a false relation. The diminished and superfluous octaves, being not only intervals banished from harmony, but also impracticable in the mode, are always false relations. It is the same thing with the diminished and superfluous thirds and sixths, tho' the last be admitted at present.

In former times false relations were forbidden; at present, they are almost all permitted in melody, but not in harmony. We may, however, make them understood, provided that one of the two sounds, which form a false relation, be not admitted as a note of taste, and not as the constitutive part of the concord.

We call also enharmonic relation, between two chords which are at a tone of interval, the connection which is found between the diesis of the inferior, and that of the superior. It is by the modification, the same touch on the organ and harpsichord; but in rigour, it is not the same sound, and there is between them an enharmonic interval. (*Vide Enharmonic.*)

**REMISS.** Remiss sounds are those which have little strength, those which, being very flat, cannot be rendered but by very loose chords, or heard very near. Remiss is opposed to intense; and there is this difference between remiss and weak, in the same manner as between intense and strong, that low and high are said of the sensation which the sound conveys to the ear, whereas intense and remiss are rather connected with the cause that produces it.

**RENVOL.** A sign figured at will, placed commonly above the staff, which corresponding with another similar sign, marks that we must, whence is the second, return where the first is, and from thence follow until we find the final point. (*Vide Point.*)

**REPERCUSSION.**

**REPERCUSSION.** A frequent repetition of the same sounds, This is what happens in every modulation well determined; where the essential chords of the mode, those which compose the harmonic triad, should be reſtruck oftener than any of the reſt. Amongſt the three chords of this triad, the two extremes, that is, the final and dominant, which are properly the repercuffion of the tone, ſhould be oftener ſtruck than that of the middle, which is only the repercuffion of the mode.

**REPETITION.** An eſſay particularly made of a piece of muſic, which is to be executed in public. Repetitions are neceſſary to certify that the copies are exact, that the actors may foreſee their parts, that they may concert together and accord, that they may expreſs the ſpirit of the work, and render faithfully what they have to ſpecify. Repetitions ſerve the compoſer alſo to judge of the effect of his piece, and make the changes it may want.

**REPLIQUE.** This term in muſic ſignifies the ſame thing as the octave. (Vide Octave.) Sometimes, in compoſition, the uniſon of the ſame note is alſo called replique, in two different parts.

There are neceſſarily repliques in each concord, throughout the whole of muſic of more than four parts. (Vide Uniſon.)

**REPEAT.** Every part of an air which is repeated twice is called by this term. It is in this ſenſe that we ſay the firſt repeat of an overture is flat, and the ſecond gay. Sometimes alſo, by repeat, we underſtand only the ſecond part of an air. We ſay alſo, that the repeat of Dardanus's beautiful minuet is worth nothing. Laſtly, repeat is alſo each of the parts of a rondeau, which has often three, and ſometimes more, the firſt of which only is repeated.

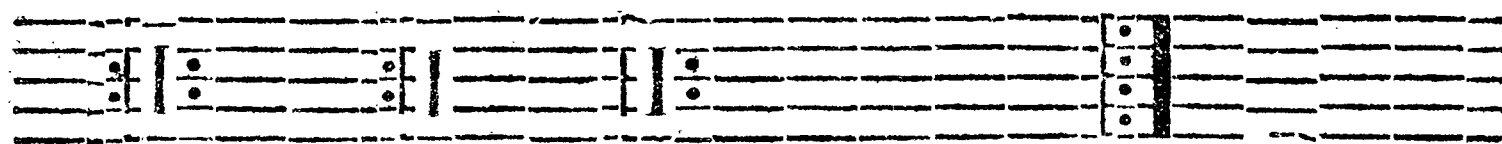
In notes we call repeat a ſign, which marks that the part of the air which precedes it ſhould be repeated, which prevents the trouble of writing it twice. In this ſenſe, we diſtinguiſh two repeats, the greater and ſmaller. The greater repeat is figured in the Italian manner, by a double perpendicular bar, with two points beyond each ſide; or in the French, by two perpendicular bars, a little more diſtant, which traVERSE the whole ſtave, and between which a point is placed in each ſpace; but this ſecond method is gradually aboliſhed: for, not being able to imitate the Italian muſic entirely, we, at leaſt, take the words and ſigns; as thoſe youths who think they follow Voltaire's ſtyle by imitating his orthography.

This repeat, thus punctuated on the right and left, generally denotes, that we muſt begin again twice, as well the part which precedes

precedes as that which follows, for which reason, it is generally found near the middle of *pas de pieds*, minuets, gavots, &c.

When the repeat has points on the left only, it is for the repetition of that which precedes; and when on the right, it is for the repetition of what follows. It would be at least to be wished, that this convention, adopted by some, was entirely established, for it appears to me very convenient. Vide the form of these different repeats.

## R É P É A T S.



In the Italian Form.

In the French Form.

The smaller repeat is, when after a greater repeat we begin some others of the last measures before we finish. There are no peculiar signs to the smaller repeat, but we commonly use some sign of the *Renvoi* figured above the staff. (Vide *Renvoi*.)

We must take notice, that those who mark correctly always take care that the last note of a repeat be exactly connected for the measure, both to that which begins the same repeat, and to that which begins the following, when there is one. If the reference of these notes does not exactly fill the measure, after the note which terminates a repeat, we add two or three notes of that which ought to be re-begun, until we have sufficiently specified how the measure is to be filled. Moreover, as at the end of a first part, we have first the first part to repeat, then the second part to begin; and as that is not always done in times, or similar parts of times, we are often obliged to mark the final of the first repeat twice; one before the sign of repeat, with the first notes of the first part; the other, after the same sign, to begin the second part. We then draw a chapeau or half-circle after that first final until its repetition, to denote that the second time we must pass, as null, all that is comprised under the demi-circle. I cannot render this explanation more clear, shorter, or more exact, but the following method will show it more perfectly.

## Method of Repeating.



RESON-

**RESONNANCE.** A prolongation or reflection of the sound, whether by the continued vibrations of the chords of an instrument, or by the tinkling of a sonorous body, or the collision of the air enclosed in a wind instrument. (Vide Sound, Music, Instrument.)

Elliptic and parabolic vaults resound ; that is, reflect the sound. (Vide Eccho.)

According to Mons. Dodart, the nose, mouth, and its parts, as the palate, the tongue, the teeth, the lips, have no connection with the tone of the voice ; but their effect is very great in resonance. (Vide Voice.)

A very sensible example is drawn from a maple instrument, called guimbard, which, if we hold it with the fingers, and strike on the languette or tongue, will give no sound ; but, if holding it between the teeth, we do the same, it will render a sound, which is varied by confining it more or less, and is heard very far, particularly in the bass.

In chord instruments, such as the harpsichord, the violin, the violincello, the sound comes from the chord only ; but the resonance depends on the case of the instrument.

**RESPONSE.** A kind of redoubled ancient, which is sung in the Roman Church after the morning lesson, and which finishes in the method of a rondeau by a repeat, called reclame.

The air of the response ought to be more ornamented than that of an ordinary ancient, without, however, going out of the flat melody, or of that of the mode which we have chosen. It is not, however, necessary for the verse of a response to be terminated by the final note of the mode : It is sufficient that this final terminates the response itself.

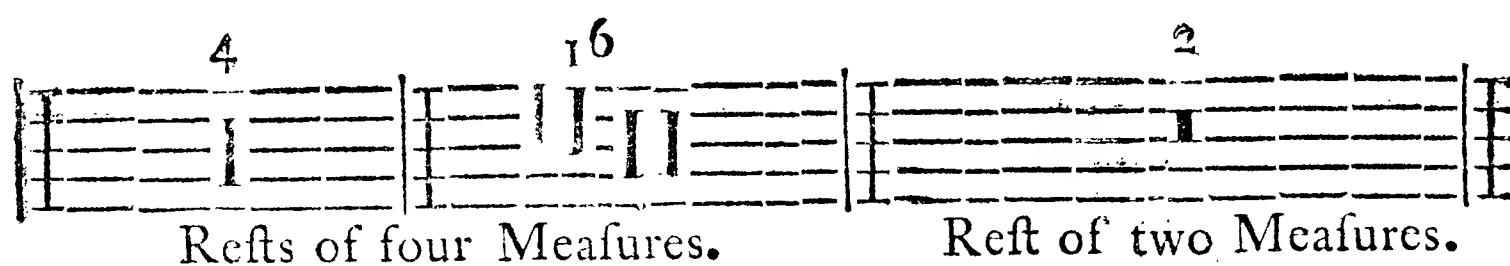
**RESPONSE.** Is also, in a fugue, the entrance of the subject by another part, after the first has made it to be heard ; but it is particularly in a counter fugue, the entrance of the subject varied from that which has been just heard. (Vide Fugue, Counter Fugue.)

**REST.** A kind of thick bar which perpendicularly traverses one or more lines of the staff, and which, according to the number of lines which it comprehends, expresses a greater or smaller quantity of measures, which ought to be passed in silence.

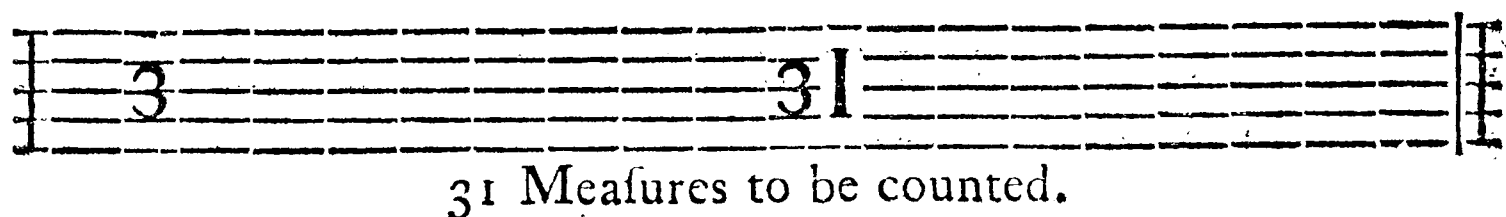
Anciently there were as many kinds of rests as different powers of the notes, from the semi-breve, which is equal to a measure, to the maximum, which equals eight, and whose duration, in silence, was empowered by a rest, which, going off from one line, traversed three spaces, and joined the fourth line.

At present, the greatest rest is of four measures. This rest, going off from one line, traverses the following, and is joined to the third.

It



It is repeated once, twice, or as many times as are necessary to express eight measures, or twelve, or every other multiple of four; and we generally add a cypher, which dispenses with calculating the powers of all these rests. So the signs covered by the cypher 16, in the above plate, denote a silence of sixteen measures. I do not see very clearly the great utility of a double sign to the same thing. So the Italians, to whom a greater practice of music always suggests the first methods of abridging its signs, begin to suppress rests; in the place of which they substitute the cypher which expresses the number of measures to be counted. But an attention, which we must have in that case, is not to confound these cyphers in the staff with other similar cyphers, which may mark the space of the measure we make use of.



So, in the above figure, we must take care to distinguish the sign of three times from that with the number of pauses to be counted, for fear, that instead of 31 measures or pauses, we should reckon 331.

The smallest rest is of two measures, and traversing a single space is only extended to the line nearest to it,

The other less silences, as a measure, half measure, time, demi-time, &c. are expressed by the words pause, demi-pause, &c. (Vide those words.)

It is easy to understand, that in combining all these signs, we may express, at pleasure, silences of any duration.

We must not confound, with rests of silences, other rests precisely of the same figure, which, under the name of initial pauses, served in our ancient music to announce the mode, that is, the measure, which I have have spoken of at the word Mode.

RHYME. Is, in its most general definition, the proportion that the parts of a whole have between each other. It is, in music, the difference which results from quickness or slowness, length or brevity of the times.

Aristides Quintilian divides the rhyme into three kinds, viz. the rhyme of immoveable bodies, which results from the just proportion

portion of their parts, as in a well made statue; the rhyme of local movement, as in dancing, the walk well composed, and the attitudes of pantomimes; and the rhyme in movements of the voice, or relative duration of sounds, in such a proportion, that, whether we always strike the same chord, or vary the sounds from sharp to flat, we always make agreeable effects result from their succession in their duration and quantity. This last kind of rhyme is the only one which I shall here speak of.

The rhyme applied to the voice may be understood either of words or music. In the first sense, it is from the rhyme, that the number and harmony of eloquence arise; the measure and cadence of poetry: in the second, the rhyme is properly applied to the power of notes, and is now called measure. (Vide Measure.)

It is also to this second acceptation that I should confine what I have to say here on the rhyme of the ancients.

As the syllables of the Greek language had quantity and more sensible powers, as well as more determined than those of our language; and as the verses which were sung were composed of a certain number of feet, which these syllables formed long or short, differently combined, the rhyme of the music regularly followed the movement of those feet, and was properly its expression. It was divided as well as those into two times, the one struck, the other raised. They counted three genera, sometimes four, and more, according to the different connections of the time. These genera were *the equal*, which was also called dactylic, wherein the rhyme was divided into two equal times: The double, trochaic or Iambic, in which the duration of one of the two times was double to that of the other. The sesquialter, which was also called peonic, whose duration, in one of the two times, was to that of the other in numerical powers as 3 to 2; and lastly, the epitrite, less used, where the connection of the two times was as 3 to 4.

The times of these rhymes were susceptible of more or less slowness, by a greater or less number of syllables, or long and short notes, according to the movement; and in this sense, a time might receive as far as eight different degrees of movement by the number of syllables which composed it; but the two times always preserved together the connection determined by the genus of the rhyme.

Besides that, the movement and motion of the syllables, and, consequently, of the times and rhyme which resulted from them, were susceptible of acceleration and slackening, at the pleasure of the poet, according to the expression of the words and character of the passions which were to be expressed. So from these two measures combined together, arose a quantity of possible modifications



difications in the movement of a same rhyme, which had no other bounds than those above or below, which the ear was not of an extent to perceive their proportions.

The rhyme, in reference to the feet which entered into poetry, was divided into three other genera. The simple, which admitted only one kind of feet; the composed, which resulted from two or more kinds of feet; and the mixt, which might be resolved into two or more rhymes, equal or unequal, according to the different combinations of which it is susceptible.

Another source of variety in the rhyme was the difference of the movements or successions of this same rhyme, according to the inter-mixture of the different verses. The rhyme might be always uniform; that is, be struck by two times always equal, as in the hexameter, pentameter, adonian, and anapestic verses, &c. or always unequal, as in the pure iambic verses; or diversified, that is mixed with equal and unequal feet, as in the scazons, choriambics, &c. But in all these cases, the rhymes, even similar or equal, might, as I have said, be very different in quickness, according to the nature of the feet. So of two rhymes of the same genus, resulting one from two spondees, the other from two pyrrhics, the first would be double to the other in duration.

Silences were also found in the ancient rhyme, not in truth, as ours to make only some one of the parts be silent, or to give certain characters to the music, but only to fill the measure of these verses called catalectics, which wanted a syllable; so the silence never could be found but at the end of the verse to supply that syllable.

In regard to Lene's, they knew them without doubt, since they had a word to express them. Its practice, however, must have been very uncommon amongst them; at least this may be inferred by the nature of their rhyme, which was only the expression of the harmony, and of the harmony of the verses. Neither does it appear that they practised trills and syncopes, or the points, unless the instruments formed something similar in accompanying the voice, of which we have no *Indice*.

Vossius, in his book *De Poematum Cantis & Veribus*, raises the ancient rhyme greatly, and attributes to it all the force of the ancient music. He says, that a rhyme detached as ours, which represents no image of things, can have no effect, and that the ancient poetic numbers had been invented only for the very end that we neglect. He adds, that language and modern poetry are little suitable to music; and that we shall never have good vocal music till we make verses favourable to the air; that is, till we confine our language, and give it, after the example of the ancients, the quantity and measured feet, by proscribing for ever the barbarous invention of the rhyme.

Our verses, says he, are precisely as if they had only one single foot; so that we have no veritable rhyme in our poetry: and, in fabricating our verses, we only take care to introduce a certain number of syllables, without scarcely taking notice of what nature they are. Surely this is not a fit composition for music.

The rhyme is an essential part of music, and particularly in the imitative. The melody is nothing without it; and by itself it is something, as we find by the effect of drums. But whence comes the impression which the measure and cadence occasion on us? What is the principle by which these returns, sometimes equal, and sometimes varied, affect our souls, and may convey to them the sentiment of the passions? Enquire of the metaphysician. All that we can say hereon is, that as the melody takes its character from the accents of the language, the rhyme draws its own from that of the prosody, and in that case it acts as an image of the words; to which we will add, that certain passions have naturally a rhymic character, as well as a melodious one, absolute, and independant of the language, as sorrow, which moves by slow and equal paces, as well as by low and slackened tones; joy, by lively and quick tones, as well as by sharp and intense tones; from whence, I presume, that we might observe in all the other passions, a peculiar character, but more difficult to catch, because the generality of these other passions being composed, partake more or less of precedents, as well as from each other.

**RHYMIC.** A part of the art of music, which taught the practice of rules of movement and rhyme, according to the laws of the rhymopæa.

The rhymic, to speak a little more in detail, consists in knowing how to chuse, between the three modes established by the rhymopæa, the most suitable to the character in question; to know and possess all kinds of rhymes in their foundation; to discern and make use of the most suitable on each occasion; to intermix them at the same time in the most expressive and agreeable method; and lastly, to distinguish the arsis and thesis, by the most sensible and best cadenced movement.

**RHYMOPÆA.** A part of the musical science, which prescribed to the rhymic art, the laws of rhyme, and of all that belongs to it. (Vide Rhyme.) The rhymopæa was to the rhymic what the melopæa was to melody.

The rhymopæa had for its object the movement, or the time whose measure it denoted, divisions, order, and mixture, whether to move the passions, to change them, or to calm them. It comprehends also the science of mute movements, called orchesis, and in general of all the regular movements. But it was principally connected with poetry, because then poetry alone regulated the  
movements

movements of music, and as there was no music purely instrumental which had an independant rhyme.

We know that the *rhymopæa* was divided into three principal modes or tropes, the one low and confined, another raised and great, and the middle tranquil and peaceable; but, besides, the ancients have left us nothing but very general precepts on this part of their music; and what they have said of it has its connection always to the verses and words destined for the music.

**RIGADOON.** A kind of dance, the air of which is struck in two times, of a lively movement; and is generally divided into two repeats, phrased from four to four measures, and beginning by the last note of the second time.

I have heard say, by a dancing-master, that the name of this dance was derived from that of the inventor, who was called Rigaud.

**RIPPIENO.** An Italian word, which is frequently found in church-music, and is similar to the word Chorus.

**RITTORNEL.** A stroke of symphony which is used after the manner of prelude to a head of the air, by which the air is ordinarily announced; or, at the end, to imitate and certify the end of the same air; or, in the middle, to repose the voice, to strengthen the expression, or simply to embellish the piece.

In recueils or partitions of ancient Italian music, the rittornels are often designed by the words *si suona*, which signifies that the instrument which accompanies should repeat what the voice has sung.

Rittornel comes from the Italian Rittornello, and signifies a small return. At present, that symphony has taken a more brilliant character, and almost independant of the vocal, we pay no more attention to simple repetitions. Wherefore the word rittornel has grown obsolete.

**ROLL.** The separated paper which contains the music that a concertant ought to execute, and is called part in a concert, but roll in an opera. Wherefore, we ought to distribute a part to each musician, and a roll to every actor.

**ROMANCE.** An air on which we sing a small poem of the same name, divided by couplets, whose subject is generally some amorous, and often tragic history. As the romance should be written in a simple touching style, and a rather antique taste, the air ought to answer to the character of the words: No ornaments; a sweet, natural, rural melody, which may produce its effect by itself, independantly of the method of singing it. It is not necessary that the air should be striking; it is sufficient that it is lively, that it does not over-shadow the words, that it makes them very clearly be heard, and requires not too great an extent of voice. A well composed romance which has nothing soaring,

does not immediately affect; but each couplet adds something to the effect of the preceding; the interest augments insensibly, and we find ourselves sometimes melted into tears, without being able to discover the charm which has produced that effect. It is a certain experience, that every accompaniment of instruments weakens this impression. For the air of a romance, we require only a just, clear voice, which pronounces well and sings with simplicity.

**ROMANESQUE.** An air for dancing.

**RONDEAU.** A kind of air with two or more repeats, and whose form is such, that after having finished the second repeat, we retake the first, and so on, returning always and finishing by the same repeat with which we began. For this purpose, we should so conduct the modulation, that the end of each repeat might be suitable to the beginning of all the rest; and that the end of all the rest may suit the beginning of that first.

The grand Italian airs, and all our arietta's, are in rondeau, as well as the greatest part of French pieces for the harpsichord.

The *Routines* are magazines of a contrary sense, for those who follow them without reflexion. Such is for musicians that of rondeau's. A great discernment is necessary to make a choice of words which are proper to them. It is ridiculous to place a complete thought in rondeau, divided into two branches. It is ridiculous to put in rondeau a comparison, whose application is made only in the second branch, in re-taking the first, and finishing by it. Lastly, it is ridiculous to place in rondeau a general thought limited by an exception, relative to the condition of him who speaks; so that, forgetting the exception which has reference to himself, he may finish in re-taking the general thought.

But every time that a sentiment expressed in the first branch, brings with it a reflexion which enforces it, and places it in the second; every time that a description of the condition of him who speaks, filling the first branch, clears a comparison in the second; every time that an affirmation in the first branch contains its proof, and its confirmation in the second; lastly, every time that the first branch contains the proposition of doing a thing, and the second the reason of the proposition; in these different cases, and in others similar, the rondeau is always well placed.

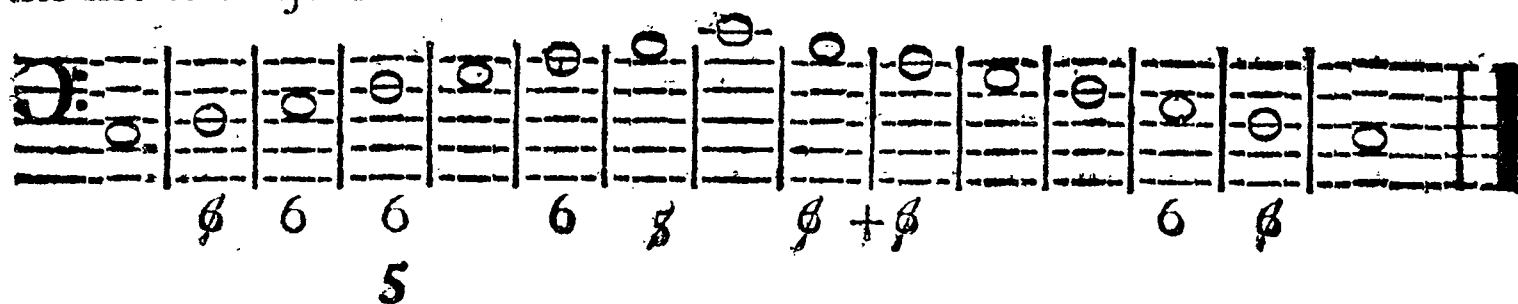
**RULE OF THE OCTAVE.** An harmonic formula, published the first time in 1700, which determines, on the diatonic motion of the bass, the concord suitable to each degree of the tone, as well in major mode as minor, and as well ascending as the contrary.

We find this formula cyphered here on the octave of the major mode, and again on the octave in minor.

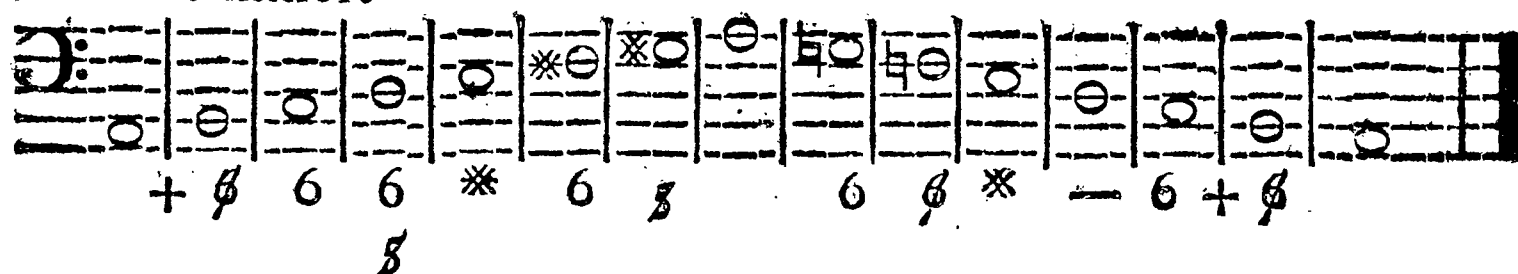
Rule

## Rule of the Octave.

In mode major.



In mode minor.



Provided that the tone be well determined, we shall not mistake in accompanying on this rule, as long as the author continues in the simple and natural harmony which the mode bears. If he leaves that simplicity by supposed concords, or other licences, it is his business to express it by suitable cyphers, which he also ought to do at each change of the tone; but all that is not cyphered should be accompanied according to the rule of the octave; and this rule should be studied on the fundamental bass, to have a right comprehension of its sense.

It is however unlucky, that a formula, destined to the practice of elementary rules in harmony, should contain a fault against those same rules. It is to give early instructions to beginners to transgress the laws that are given them. This fault is in the accompaniment of the sixth note, with which the concord cyphered by a 6, offends against the rules; for we can find no union; and the fundamental bass descends diatonically from a perfect concord on another perfect concord. A liberty to be formed into a rule.

We might manage that there could be an union, by adding a seventh to the perfect concord of the dominant; but then this seventh, becoming an octave on the following note, would not be preserved; and the fundamental bass, descending on a perfect concord diatonically, after a concord of seventh, would make a movement quite intolerable.

We might also give to this sixth note, the concord of smaller sixth, the fourth of which would form an union; but this would be fundamentally a concord of seventh with minor third, where the dissonance should not be prepared, which is also against the rules. (Vide To Prepare.)

We might cypher sixth fourth on this sixth note, and it would be then the perfect concord of the second; but I am in doubt if the musicians would approve a variation so ill understood as that;

a variation which the ear does not adopt, and on a concord which removes too much the idea of the principal modulation.

We might change the concord of the dominant, giving it the sixth fourth instead of the seventh, and then the simple sixth would suit very well on the sixth note which follows; but the sixth fourth would suit very ill on the dominant, unless it was followed by the perfect concord, or the seventh, which would bring back the difficulty: A rule, which serves not only in practice, but as a model for practice, should never be drawn from those theoretic combinations rejected by the ear; and each note, particularly the dominant, should convey to it its proper concord whenever it has one.

I look on it then as a certain thing that our rules are bad, or that the concord of sixth, with which we accompany the sixth note in ascending, is a fault that should be corrected; and that to accompany this note regularly, as is necessary in a formula, there is only one concord to give it, viz. that of the seventh; not a fundamental seventh, which, in this movement, not being able to be preserved but by another seventh, would be a fault; but a seventh varied by a concord of sixth added on the tonic: It is clear, that the concord of the tonic is the only one which can be regularly inserted between the perfect concord, or of seventh on the dominant, and the same concord on the sensible note which immediately follows. I wish some ingenious persons may find this correction good: I am sure, at least, that they will find it regular.

**TO RULE THE PAPER.** Is to mark on fair paper, the staves to mark the music on. (Vide Ruled Paper.)

**RULER.** A workman whose profession consists in ruling the papers for music. (Vide Copist.)

**RULING.** The method by which the paper is ruled. "This ruling is too black." "There is pleasure in writing notes on a neat ruling." (Vide Ruled Paper.)

## S.

**S.** This letter written alone in the reciting part of a concert, signifies solo, and is then alternative with T, which signifies tutti:

**SARABAND.** The air of a dance, which bears the same name, which seems to have been transmitted from Spain, and was formerly danced with castagnetto's. This dance is no longer used



used, unless in some old French operas. The air of the faraband is at three slow times.

**TO SAVE.** To save, or preserve a dissonance, is to resolve it, according to rules of the consonance of a following concord. There is a movement prescribed to this, both in the fundamental bass of the dissonant accord, and in the part which forms the dissonance. There is no method of saving, which is not derived from an act of cadence; it is then by the nature of the cadence we would make, that the movement of the fundamental bass is determined. (Vide Cadence.)

In regard to the part which forms the dissonance, it ought neither to continue in its place, nor to move by disjoint degrees; but it ought to ascend or descend diatonically, according to the nature of the dissonance. Masters say, that the major dissonance ought to ascend, and the minor to descend; which is not without exception, since in certain chords of harmony, a seventh as well, major, ought not to ascend, but fall; unless in the concord, termed very incorrectly, concord of superfluous seventh: It is better then to say, that the seventh and every dissonance deriving from it, ought to descend, and that the sixth added, and every dissonance deriving from it, should rise. This is a rule really general and without any exception. It is the same thing with the law of saving the dissonance: there are dissonances which we may prepare; but there is no one, that we should not save.

In regard to the sensible note, improperly called major dissonance, if it ought to ascend, it is less by the rule of saving the dissonance, than by that of the diatonic movement, and to prefer the shortest way; and effectually there are cases, as that of the interrupted cadence, where this sensible note does not ascend.

In concords by supposition, a same concord furnishes two dissonances, as the seventh and ninth, the ninth and fourth, &c. These dissonances should then have been prepared, and ought both to be saved; that is, we must pay attention to all that has a dissonance, not only on the fundamental bass, but also on the thorough.

**SCALE.** This name is given to the diatonic succession of the seven notes, ut re mi fa sol la si, of the gamut, because these notes are found ranged in the manner of scales on the staves of our music. This enumeration of all the diatonic sounds of our system, ranged in order, which we call scale, was called by the Greeks, tetrachord, because in effect their scale was composed of only four sounds, which they repeated from tetrachord to tetrachord, as we do from octave to octave. (Vide Tetrachord.)

Saint Gregory was, they say, the first who changed the tetrachords of the ancients, into a heptachord, or system of seven notes: at the end of which, beginning another octave, we find similar sounds repeated in the same order. This discovery is very ingeni-

ous, and it must appear singular, that the Greeks, who saw very clearly the properties of the octave, should, in spite of that, have thought, they should continue attached to their tetrachords. Gregory expressed these seven notes, by the first seven letters of the Latin alphabet. Gui Aretin gave names to the six first, but he neglected to give one to the seventh; which in France, has since been called *si*, and which has no other name yet than *B mi*, amongst the other european nations.

We must not think, that the connections of the tones, and semi-tones, of which the scale is composed, are things purely arbitrary; and that by other divisions as good, an order, and different connections could have been given to the found of this scale. Our diatonic system is better in certain respects, because it is engendered by the consonances, and the difference there are between them.

“Let a person hear, says *Mont. Sauveur*, several times the concord of the fifth, and that of the fourth, he is naturally led to imagine the difference which is betwixt them. It is united, and conjoined with those in our mind, and partakes of their graces; this is the major tone. It is the same thing with the minor tone, which is the difference of the minor third and the fourth, and the major semi-tone, which is that of the same fourth in major third”. Moreover, the major tone, the minor tone, and the major semi-tone, are the diatonic degrees of which our scale is composed, according to the following references,

<b>Major Tone.</b>		<b>Minor Tone.</b>		<b>Semi Tone Major.</b>		<b>Major Tone.</b>		<b>Minor Tone.</b>		<b>Major Tone.</b>		<b>Major Semi Tone.</b>
Ut		Re		Mi		Fa		Sol		La		Si Ut
$\frac{3}{9}$		$\frac{3}{10}$		$\frac{15}{16}$		$\frac{8}{9}$		$\frac{9}{12}$		$\frac{8}{9}$		$\frac{15}{16}$

To make a proof of this calculation, we must compose all the connections comprised between two consonant terms, and we shall find, that their product gives exactly the reference of the consonance; and if we re-unite all the terms of the scale, we shall find the total connection in sub-double numerical powers; that is, as 1 to 2, which is in effect the exact connection of two extreme terms, viz. of the *ut* to its octave.

The

The scale we have now seen, is that which is called natural or diatonic ; but the moderns, dividing its degrees into other smaller intervals, have derived from it another scale, which they have called semi-tonic or chromatic scale, because it proceeds by semi-tones.

To form this scale, we have only divided into two equal intervals, or supposed so, each of the five entire tones of the octave, without distinguishing the major tone from the minor ; which, with the two major semi-tones which were already found, forms a succession of twelve semi-tones on thirteen consecutive sounds, from one octave to the other.

The use of this scale is to give the methods of modulating on whatever note we choose, as fundamental ; and of being able, not only to form any interval on this note, but to establish a diatonic scale on it, similar to the diatonic scale of ut. Whilst we are contented to have, as tonic, a note of the gamut taken at pleasure, without troubling ourselves if the sounds by which the modulation ought to pass, were with that note, and between themselves, in suitable references, the semi-tonic scale was little necessary ; whatever fa diesis, whatever si B flat, composed what was called the sharps of music, there were only two touches to add to the diatonic keys. But since we have thought to have felt the necessity of establishing a perfect similitude between the different tones, it has been necessary to find methods of transporting the same airs and the same intervals, higher or lower, according to the tone which we may have chosen. The chromatic scale is then become of indispensable necessity ; and 'tis by its means that we convey an air on such degree of the keys as we would choose, and that we render it exactly on this new position, such as it may have been imagined for another.

These five added sounds form no new degrees in music ; but they are all marked on the nearest degree, by a B flat if the degree is higher, by a diesis if it is lower ; and the note always takes the name of the degree on which it is placed. (Vide B Flat and Diesis.)

To assign, however, the connections of these new intervals, we must know, that the two parts or semi-tones which compose the major tone, are in the references of 15 to 16, and 128 to 135 ; and that the two which compose the minor tone also, are in the references of 15 to 16, and 24 to 25 ; so that in dividing the whole octave according to the scale of semi-tonic, we have all its terms in the references placed on the following figure.

Chromatic

## Chromatic Scale drawn from Monf. Malcolm.

Major.	Middle.	Major.	Minor.	Major.	Middle.	Major.	Major.	Minor.	Major.	Middle.	Major.
Ut, ut	*, re,	mi b,	mi,	fa,	fa *	fol,	fol *	la,	fi b,	fi,	ut.
15	128	15	24	15	128	15	15	24	15	128	15
16	135	16	25	16	135	16	16	25	16	135	16

But we must take notice that this division, drawn from Monf. Malcolm, seems to want justness in many respects. First, the semi-tones which ought therein to be minor, are major; and that of fol diesis in la, which ought to be major, is minor. In the second place, several major thirds, as that of la in ut diesis, and of mi in fol diesis, are too strong by a comma, which must render them insupportable. Lastly, the middle semi-tone, being there substituted in the place of the semi-tone maximum, gives false intervals wherever it is used. On which we ought not to forget, that this middle semi-tone is greater than the major itself, i. e. middle between the maximum and major.

A better and more natural division would then be, to divide the major tone, into two semi-tones; the one minor from 24 to 25, the other maximum from 25 to 27, leaving the minor-tone divided into 2 semi-tones, the one major, and the other minor, as in the table above. There are still two other semi-tonic scales, which are derived from two other different methods of dividing the octave by semi-tones.

The first is made by taking an harmonic, or arithmetical middle, between the two terms of the major tone, and another betwixt those of the minor tone, which divides the one and the other tone

into two semi-tones almost equal; so the major tone  $\frac{8}{9}$  is divided

into  $\frac{16}{17}$  and  $\frac{17}{18}$  arithmetically, the numbers representing the length

of the chords; but when they represented the vibrations, the lengths of the chords are reciprocal, and in harmonic proportion,

as one  $\frac{16}{8}$  — which places the greater semi-tone in flat.

In the same manner the minor tone  $\frac{9}{10}$  is arithmetically divided

into

into two semi-tones  $\frac{18}{19} \frac{19}{20}$  — or reciprocally one  $\frac{18}{19} \frac{9}{10}$  — but this last division is not harmonic.

The whole octave thus calculated, gives the references expressed in the following scale.

#### Chromatic Scale by Monf. Malcolm.

<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>	<u>19</u>	<u>16</u>	<u>17</u>	<u>15</u>
17	18	19	20	16	17	18	19	20	17	18	16
$\underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}} \underbrace{\hspace{1.5em}}$											
Ut,	ut ♯,	re,	mib,	mi,	fa,	fa ♯,	sol,	sol ♯,	la,	si b,	si, ut;

Monf. Salmon relates, in his Philosophical Transactions, that he made, before the Royal Society, a tryal of this scale, on chords exactly divided according to these proportions, and that they were perfectly in concord with the other instruments touched by the best hands.

Monf. Malcolm adds, that having calculated and compared these connections, he found a greater number of faults in this scale than in the precedent; but that the errors were considerably less, which makes some compensation.

Lastly, the other semi-tonic scale is that of the Aristoxenians, which P. Merfenne has very largely treated, and which M. Rameau has endeavoured to renew in these last times. It consists in geometrically dividing the octave by eleven methods proportioned in twelve semi-tones perfectly equal. As their connections are not rational, I will not give here those references which cannot be expressed but by the formula itself, or by logarithms of the terms of progression between the extremes 1 and 2. (Vide Modification.)

As in the diatonic and chromatic genus the harmonists add a third, viz. the enharmonic, this third genus should have its scale also, at least by supposition; for tho' the truly enharmonic intervals do not exist in our keys, it is yet certain, that every enharmonic passage supposes them; and that the mind, correcting the sensation of the ear on this point, passes then from one idea to another, only through favour of this interval understood. If every tone was exactly composed of two minor semi-tones, every enharmonic interval would be null, and this genus could no longer exist. But as a minor tone itself contains more than two minor semi-tones, the complement of the sum of these two semi-tones to the tone, that is, the space which remains between the diesis of the inferior note, and the B flat of the superior, is precisely the enharmonic interval, called commonly the fourth of the

the tone. This fourth of the tone is of two kinds, viz. the major and the minor enharmonic, whose connections may be found at the word *Quarter of a Tone*.

This explanation ought to suffice to every reader, for the easy conception of the enharmonic scale, which I have calculated, and here inserted.

### Enharmonic Scale.

Ut,	ut ♯,	re ♭,	re,	re ♯,	mi ♭,	mi,	mi ♯,	fa,	fa ♯,	sol ♭,
$\frac{24}{25}$	$\frac{576}{625}$	$\frac{24}{25}$	$\frac{24}{25}$	$\frac{125}{128}$	$\frac{24}{25}$	$\frac{24}{25}$	$\frac{125}{128}$	$\frac{24}{25}$	$\frac{576}{625}$	$\frac{24}{25}$

sol,	sol ♯,	la ♭,	la,	la ♯,	fi ♭,	fi,	fi ♯,	ut.
$\frac{24}{25}$	$\frac{125}{128}$	$\frac{24}{25}$	$\frac{24}{25}$	$\frac{576}{625}$	$\frac{24}{25}$	$\frac{24}{25}$	$\frac{125}{128}$	

Those who would chuse a clearer account of this point, must turn to the word Enharmonic.

SCENE. We distinguish in lyric music, the scene from the monologue, in that, there is only one actor in the monologue, and at least two speakers in the scene. Consequently in the monologue, the character of the music should be one, at least in regard to the person: but in the scenes, the music should have as many different characters as there are speakers. In effect, as in speaking, each one always continues the same voice, the same accent, and generally the same style in all that he says; so every actor, in the different passions he expresses, should always preserve a character peculiar to him, and which may distinguish him from another actor. The grief of an aged man, has not the same tone as that of a young one; the passion of a Billingsgate fish-woman, has different accents from that of a warrior: A Barbarian can never say "I adore you," as a professed amorofo.

We must then in scenes, render not only the character we would paint, but that of the person whom we make to speak. This character is partly denoted by the kind of voice appropriated to each part; the turn in singing of a counter-tenor is different from that of the bass tenor. We place more gravity in the airs of bass trebles, and more vivacity in those of sharper voices. But besides these differences, the ingenious composer must find individual ones to characterize his personages, so that one shall know in a moment, by the peculiar accent of the recitative or air, if it is Mandane or Emira, if its Orintes or Alcestes, whom  
we



we hear. I agree that there are only men of genius, who feel, and mark these differences; but I say however, that it is only in the observation of them, and others similar, that we are able to produce the illusion.

**SCHISMA.** A small interval, which is equal to the half of a comma, and whose numerical powers are consequently mute, since, to express it in numbers, it would be necessary to find a proportional medium between 80 and 81.

**SCHOENION.** A kind of nome for flutes in the ancient Greek music.

**SCHOLIA.** A kind of song amongst the ancient Greeks, whose characters were extremely diversified according to subjects and persons. (Vide Song)

**SECOND.** An interval of a conjoint degree, wherefore the diatonic movements are all made on the intervals of the second.

There are 4 kinds of seconds. The first called diminished second, is made on a major tone, whose inferior note is connected by a diesis, and the superior by a B flat; such, for instance is the interval of the re B flat, to the ut diesis. The connection of this second is from 375 to 384; but it is of no use, unless in the enharmonic genus: the interval also is found null in virtue of the modification. In regard to the interval of one note to its diesis, which Broffart calls diminished second, it is not a second, it is a changed unison.

The second, which is called minor second, is constituted by the major semi-tone, as of si to ut, or of mi to fa; its connection is from 15 to 16. The third is the major second, which forms the interval of a tone; as this tone may be major or minor, the reference of this second, is from 8 to 9 in the first case, from 9 to 10 in the second. But this difference is null in our music.

Lastly, the fourth is the superfluous second, composed of a major tone, and a minor semi-tone, as from fa to sol diesis: Its connection is from 64 to 75.

There are in harmony two concords, which bear the name of second, the first is simply called concord of second. It is a concord of varied seventh, whose dissonance is in the bass; from whence it follows very clearly, that the bass should syncopate to prepare it. (Vide to Prepare.)

When the concord of seventh is dominant, i. e. when the third is major, the concord of the second is called concord of triton, and the syncope is not necessary, because the preparation is not so.

The other is called concord of superfluous second. It is a concord varied from that of diminished seventh, the seventh of which itself is conveyed to the bass. This concord is equally good with or without a syncope. (Vide Syncope.)

**SEMI.** A word borrowed from the Latin, which signifies half, We use it in music, instead of the hemi of the Greeks, to compose

M m m

several

several technical words very barbarously, the half Greek and the half Latin. This word, before the Greek name in any interval whatever, always signifies a diminution, not the half of this interval, but only a minor semi-tone; wherefore semi-diton is the minor third; semi-diapente, the false fifth; semi-diateffaron, the diminished fourth.

**SEMI BREVE.** Is, in our ancient music, a power of notes or measure of a time, which comprehends the space of two minime's, that is, the half of a breve. The semi-breve is however called round, because it has that figure; but formerly it was in a lozenge.

Anciently the semi-breve was divided into major and minor, the major is equal to two thirds of the perfect breve, and the minor to the other third of the same breve; wherefore the major semi-breve contains two minors

The semi-breve, before the minime was invented, being the note of less power, was not sub-divided. This indivisibility, they say, is expressed in some measure, by its figure of a lozenge terminated above, below, and at the two sides, by points. Moreover Muris proves, by the authority of Aristotle and Euclid, that the point is indivisible; from whence he concludes, that the semi-breve enclosed between four points is indivisible as themselves.

**SEMI TONE.** Is the smallest of all the intervals admitted in modern music; it is nearly equal to the half of a tone.

There are several kinds of semi-tones, two are distinguished in practice, the major, and the minor; three others are known in harmonic calculations, viz. The semi-tone maxime, the minime, and the middle; the semi-tone major is the difference of the major third to the fourth, as mi fa. Its connection is from 15 to 16, and it forms the smallest of all the diatonic intervals.

The minor semi-tone is the difference of the major third to the minor. It is marked on the same degree by a diesis or a B flat: It forms only one chromatic interval, and its reference is from 24 to 25.

Though we place a difference between these two semi-tones by the method of noting them, there is none, however, on the organ and harpsichord; and the same semi-tone is sometimes major and sometimes minor, sometimes diatonic and sometimes chromatic, according to the mode in which we are however in practice. We call semi-tones minor, those, which being marked by a B flat or diesis, do not change their degree; and semi-tones major, those, which form an interval of the second.

In regard to the three other semi-tones admitted only in theory, the semi-tone maxime is the difference of the tone major to the semi-tone minor, and its connection is from 25 to 27. The middle semi-tone is the difference major to the tone major, and its connection is from 128 to 135. Lastly, the semi-tone minime,

is the difference of the semi-tone maxime to the middle semi-tone, and its connection is from 125 to 128, of all these intervals, there is only the major semi-tone, which, in quality of second, may be sometimes admitted into harmony.

**SEMI TONIC.** A semi-tonic or chromatic scale. (Vide Scale.)

**SENSIBILITY.** A disposition of the soul which inspires the composer with the lively ideas which he wants; the executant, with the lively idea of these same expressions; and the auditor, with the lively impression of the beauties and errors of music which he is made to hear. (Vide Taste.)

**SENSIBLE.** A sensible concord is that which is otherwise called dominant concord. (Vide Concord.)

It is practiced only on the dominant of the tone; from whence it receives the name of dominant concord, and it always bears the sensible note for third of that dominant, from whence it receives the name of sensible concord. (Vide Concord.)

In regard to the sensible note. (Vide Note.)

**SEVENTH.** A dissonant interval varied from the second, which is called by the Greeks, heptachordon, because it is formed of seven sounds, or six diatonic degrees. There are four sorts of them. The first is the minor seventh composed of four tones, three major and a minor, and of two major semi-tones, as from mi to re: and chromatically of 10 semi-tones, six major and four minor. Its connection is from 5 to 9.

The second is the major seventh, composed diatonically of five tones, three major and two minor, and of a major semi-tone; so that no more than one major semi-tone is necessary to compose an octave, as from ut to si, and chromatically of 11 semi-tones, six major, and five minor. Its connection is from 8 to 15.

The third is the diminished seventh, it is composed of three tones, two minor and one major, and of three major semi-tones, as from ut diesis, to si B flat. Its connection is from 75 to 128.

The fourth is the superfluous seventh, it is composed of five tones, three minor and two major, a semi-tone major, and a semi-tone minor as from si B flat, to la diesis, so that there is only a comma wanting to it to form an octave. Its connection is from 81 to 160, but this last kind is not used in music, unless in some enharmonic transitions.

There are three concords of the seventh.

The first is fundamental, and bears simply the name of seventh, but when the third is major, and the seventh minor, it is called sensible or dominant concord. It is composed of the third, the fifth, and the seventh.

The second also is fundamental, and is called concord of diminished seventh; it is composed of the minor third, the false fifth,

M m m 2

and

and the diminished seventh, whose name it takes, that is, of three minor consecutive tones, and is the only concord, which is thus formed of equal intervals : It is made on the sensible note only, (Vide Enharmonic.)

The third is called concord of superfluous seventh ; it is a concord by supposition formed by the dominant accord, below which the bass makes the tonic be heard.

There is also a concord of seventh and sixth, which is only a variation of the concord of the ninth. It is only practised in the organ points on account of its duration. (Vide Concord.)

SERENADE. A concert given in the night under the windows of some one.

It is generally composed of instrumental music ; sometimes however the voice is added to it. We call serenades also the pieces composed or executed on these occasions. The mode of serenades has been long obsolete ; they continue no longer but amongst the lower people, and that is a pity. The silence of the night, which banishes all confusion, makes the music superior, and renders it more delicious.

This word, Italian in its origin, comes without doubt from sereno, or from the Latin serum, in the evening. When the concert is performed in the morning, or at break of day, it is called aubade.

SESQUI. A particle often used by our ancient musicians in the composition of words, serving to express the different sorts of measures.

They called Sefqui Alter's, the measures whose principal note was equal to the half more than its ordinary powers, that is, three of the notes, of which otherwise it would have only equalled two, which had place in all the triple measures, whether in major, where the breve itself without points was equal to three semi-breves, or in the minor, where the semi-breve equalled three minime's, &c.

They called the triple also sesqui alter, marked by this sign  $C \frac{9}{8}$ , double sesqui fourth, the triple marked  $C \frac{9}{4}$ , and so on with the rest. Sefqui diton, or hemi diton, in the Greek music, is the interval of a minor third.

SEXTUPLE. A name given rather improperly to measures of two times composed of six equal notes, three for each time. These kinds of measures have been also called by some improperly, " six timed measures."

We may reckon five kinds of these sextuple measures, that is, as many as there are different powers of the notes, from that which is composed of six rounds or semi-breves, called in France triple of  
fix

fix for one, and which is expressed by this cypher —<sup>6</sup> to that called  
triple of fix for sixteen, composed only of fix double demi-crotchets  
only, and which is marked also—<sup>16</sup>. The greatest part of these dif-

tinctions are abolished, and in effect they are rather useless, since all these different figures of notes, are less different measures than modifications of the movement in the same kind of measure; which is still better marked by a single word written at the head of the air, than with all the confusion of cyphers and notes, which only serve to increase the difficulty of an art which is puzzling enough in itself. (Vide Double, Triple, Time, Measure, &c.)

SHARP. The alteration of a note or an interval by a diesis or B flat. This is properly the common and general name of the accidental diesis's and B's flat. The word is no longer in use, but there is no other substituted in its place. The fear of using superannuated terms daily enervates our language; the fear of using old terms decreases it daily; Its greatest enemies will ever be those who purify it.

They called sharp also the chromatic touches of the keys, which we now call, white touches, and which were formerly made black, because our rude ancestors had not the ingenuity of making the keys black, to give a greater eclat to the Ladies fingers. We call at present cut sharps, those of the touches which are broken to supply the *Ravalement*.

TO SKIP. We skip a tone, when giving a Flute too much wind, or in the pipe of a wind instrument, we force the air to be divided, and make instead of the full tone of the flute, or pipe, only some one of its harmonies. When the skip is of an entire octave, it is called to octave. It is clear that to vary the sounds of the trumpet and french-horn, we must necessarily skip, and it is only in skipping that we make octaves on the flute.

SI. One of the seven syllables which they make use of in France to sol-fa their notes. Guy Aretin in composing his gamut, invented only six of these syllables, because he only changed in hexachords, the Greek tetrachords, tho' in the end, his gamut, as well as ours, was composed of seven notes. It happened from thence, that to name the seventh, it was necessary every movement to change the names of the rest, and to name them in different manners: an embarrassment which continues no longer, since the invention of si, on the gamut, from which a musician, named de Nevers, made, in the beginning of this century, an express work.

Bropard, and those who have followed him, attribute the invention of si to another musician, named Le Maire, betwixt the middle and end of the last century; others give the honour of it to a certain

Vander

Vander Pullen : others ascend as far as Jean de Muris, about the year 1330, and the Cardinal Bona, says, that about the eleventh age, which was that of Aretin, Erius Dupuis added a note to the sixth of Guy, to avoid the difficulties of the divisions, and facilitate the study of music.

But, without attending to the inventions of Erius Dupuis, which without doubt died with him, or on which Bona, later by five centuries, may have been deceived ; it is even easy to prove, that the invention of *fi* is much later than Jean de Muris, in whose writings we see nothing similar to it.

In regard to Vander Pullen, I cannot say any thing as I am not acquainted with him. Le Maire now remains, in whose favour the voices of all seem to unite ; If the invention consists in having brought into practice the use of this syllable *fi*, I do not see many reasons for disputing the honour with him. But if the true inventor is he, who has first found the necessity of a seventh syllable, and who has added one in consequence, we need not search far to find, that Le Maire has no claim to this title ; for we find in several parts of P. Merfenne's writings, the necessity of the seventh syllable to avoid the divisions ; and he witnesses that several had invented or practised this seventh syllable nearly in the same time ; and amongst others, Gilles Grand Jean, writing master of Sens ; but that some named that syllable *ci*, others *di*, others *ni*, others *fi*, others *za*, &c. Even before P. Merfenne, we find, in a work of Banchieri, monk of Olivet, printed in 1614, and entitled *Castella di Musici*, the addition of the same seventh syllable ; he calls it *Bi* by *B* sharp, *Ba* by *B* flat, and he assures us, that this addition has been very much approved at Rome. So that all the pretended invention of Le Maire consists, at the most, in having written or pronounced *fi*, instead of having written or pronounced *Bi* or *Ba*, *Ni* or *Di*, and this is what has immortalized Le Maire. As to what remains, the use of the *fi* is known only in France, and in spite of what the monk Banchieri says of it, it is not even preserved in Italy.

**SICILIAN.** A kind of air for dancing, in the 6—4 or 6—8 measures of a movement much slower, but yet more specified than the jig.

**SIGNS.** Are, in general, all the different characters made use of to mark the music. But this word is more particularly understood of the diesis's *B*'s flat, *B*'s sharp, points, repeats, pauses, guidons, and other small detached characters, which without being real notes, are modifications of notes and of the method of executing them.

**SILENCES.** Signs answering to the different powers of the notes, which, put in the place of those notes, mark, that the whole of their time should be passed in silence.

Tho



Tho' there are 10 powers of different notes, from the maximum to the quadruple demi-crotchet, there are however only 9 different characters for the silences; for that which ought to correspond to the maximum, has always failed, and to express its duration, we double the rest four measures, being of an equality with the longue.

These different silences are then, first, the rest of four measures, which is equal to a longue; Secondly, the rest of two measures, equal to a breve; Thirdly the pause, equal to a semi-breve; Fourthly the demi-pause, equal to a minime; Fifthly the minime rest, equal to a crotchet; Sixthly, the demi-minime rest, equal to a demi-crotchet; Seventhly, the quarter-minime rest equal to a double demi-crotchet; Eighthly, the demi-quarter minime rest, equal to a triple demi-crotchet; and Ninthly the sixteenth of a minime rest, equal to a quadruple demi-crotchet.

We must take notice, that the point has no place among silences as among notes; for tho' a crotchet and minime rest may be of equal powers, it is not customary to point the latter to express the powers of a pointed crotchet, but we ought, after the minime rest, to write also a demi-minime rest. However, as some point the silences also, the executant must be ready to all.

**SIMPLE.** In doubles and variations, the first couplet, or original air, such as it is now marked, is called the simple. (Vide Double, Variations.)

**TO SING.** Is, in its most general acceptation, to form strong and varied sounds by the voice. But it is most generally the formation of different inflexions in the voice, sonorous, agreeable to the ear, by intervals admitted in music and within the rules of modulation.

We sing more or less agreeably, in proportion as the voice is more or less agreeable and sonorous; the ear more or less just; the organs more or less flexible; the taste more or less formed; and more or less practised in the art of singing. To which we should add, in imitative and theatrical music, the degree of sensibility which affects us, more or less, with the sentiments we are to render. We have also more or less disposition towards singing, according to the climate in which we are born, and according to the more or less accent in our natural language. For the more accented the language is, and, consequently, the more melodious, more those who speak it have the facility of singing it.

There has been composed an art of singing, that is, observations on those voices which sung the best; there have been composed, rules for facilitating and improving the use of this natural endowment. But there remain many discoveries to be made, on the easiest, shortest, and surest method of acquiring that art.

**SINGER.**

**SINGER.** A musician who sings in a concert.

**SINGING MASTER.** A musician who teaches the reading of vocal music, and singing on the notes.

The functions of the singing-master relate to two principal objects. The first, which regards the culture of the voice, is to draw from it all that can be given in regard to singing, whether by the extent, by the justness, by the sound, by the nimbleness, or by the art of enforcing and sweetening the sounds, and learning to manage and modify them with all the ingenuity possible.

The second object regards the study of the signs, that is, the art of reading the notes on the paper; and the custom of decyphering it with so much facility, that, at the opening of the book, we may be able to sing every kind of music. (Vide Notes.)

A third part of the functions of the singing-master regards the knowledge of the language, particularly of the accents, of the quantity and best method of pronouncing them; because the errors of pronunciation are much more sensible in a song, than in conversation; and a well composed vocal, should be only a more energetic and more agreeable method of marking the prosody and accents. (Vide Accent.)

**SIXTH.** The second of two imperfect consonances, called hexachord by the Greeks, because its interval is formed of six sounds, or five diatonic degrees. The sixth is a natural consonance, but only by combination; for there is not in the order of consonances, any simple or direct sixth.

To consider the sixth only by their intervals, we find four kinds, two consonant and the dissonant.

The consonants are, first, the minor sixth composed of three tones and two semi-tones major, as mi ut. Its relation is from five to eight. Secondly, the major sixth, composed of four tones and a major semi-tone, as sol mi. Its connection is from three to five. The dissonant sixths are, first, the diminished sixth, composed of two tones and three major semi-tones, as ut diesis la B flat; and whose relation is from 125 to 192. Secondly, the superfluous sixth, composed of four tones, a major semi-tone, and a minor semi-tone, as si B flat, and sol diesis. The relation of this sixth is from 72 to 125.

These two last intervals are never used in melody; and the diminished sixth is omitted in harmony.

There are seven concords which have the name of sixth. The first is simply called concord of sixth; it is the perfect concord, whose third is conveyed to the bass. Its place is on the mediant of the tone, or on the sensible note, or on the sixth.

The second is called concord of sixth-fourth. This is also the perfect concord, whose fifth is conveyed to the bass. It is never made but on the dominant or on the tonic.

The

The third is called concord of smaller sixth. It is a concord of seventh, whose fifth is conveyed to the bass. The smaller sixth is conveyed ordinarily on the second note of the tone, or on the sixth.

The fourth is the concord of sixth and fifth, or greater sixth. It is also a concord of seventh, but whose third is conveyed to the bass. If the fundamental concord is dominant, then the concord of greater sixth loses this name, and is called concord of false fifth. (Vide False Fifth.) The greater sixth is commonly placed only on the fourth note of the tone.

The fifth is the concord of sixth added. A fundamental concord, composed, as that of the greater sixth, of a third, a fifth, a major sixth; and which is placed in the same manner on the tonic or fourth note. We can then distinguish these two concords only by the method of saving them; for if the fifth descends, and the sixth remains, it is the concord of greater sixth, and the bass forms a perfect cadence; but if the fifth remains, and the sixth ascends, it is the concord of sixth added, and the fundamental bass forms an irregular cadence. Moreover, as, after having struck this concord, we are masters of one of these two methods, this keeps the audience in suspense on the true foundation of the concord, until the end has determined it: and 'tis this liberty of choosing, that *Mont. Rameau* calls double-employ. (Vide that word.)

The sixth concord is that of major sixth and false fifth, which is no more than a concord of smaller sixth in minor mode, in which the false fifth is substituted in place of the fourth; or, to express myself differently, it is a concord of diminished seventh, in which the third is conveyed to the bass. It is placed only on the second note of the tone.

Lastly, The seventh concord of sixth, is that of the superfluous sixth. It is a kind of smaller sixth, which is never practised but on the sixth note of a minor tone descending on the dominant; as then the sixth of this sixth note is naturally major; it is sometimes rendered superfluous by adding to it a diesis. That superfluous sixth then becomes an original concord, which is not overthrown or varied. (Vide concord.)

**SLOWLY.** This word answers to the Italian *largo*, and denotes a slow movement. The superlative sound, very slowly, marks the slowest of all the movements.

**SOL.** The fifth of the six syllables invented by *Aretin*, to pronounce the notes of the gamut. The natural *sol* answers to the letter *G*. (Vide Gamut.)

**TO SOL FA.** Is, in tuning the sounds, to pronounce at the same time the syllables of the gamut which correspond to them. This exercise is that by which those begin who learn music,

N n n

that

that the idea of these different syllables uniting in their mind to that of the intervals which have relation to it, these syllables assist them to recall these intervals.

Aristides Quintilian teaches us, that the Greeks had four syllables or denominations of notes to sol fa, which they repeated at each tetrachord, as we repeat seven in each octave. These four syllables were the following, te, ta, thè, tho. The first answered to the first sound, or the hypate of the first tetrachord, and the following; the second to the parhypate; the third to the lichanos; the fourth to the nete; and so on in re-beginning: a method of sol-faing, which, shewing us clearly that their modulation was confined within the extent of the tetrachord, and that the homologous sounds, preserving both the same connections, and the same names, from one tetrachord to another, were repeated from fourth to fourth, as amongst us from octave to octave, proves, at the same time, that their harmonic generation, had no relation with ours, and was established on principles entirely different.

Guy d'Arezzo, having substituted his hexachord in the place of the ancient tetrachord, substituted also, to sol-fa it, six other syllables to the fourth which the Greeks used differently. These six syllables are the following, ut, re, mi, fa, sol, la; drawn, as every one knows, from the Hymn of St. John Baptist. But every one does not know, that the air of this hymn, as it is now sung in the Roman-church, is not exactly that from which Aretin took his syllables; since the sounds which bear them in this hymn, are not those which bear them in his gamut. We find, in an ancient manuscript, in the library of the Chapter of Sens, this hymn; such, probably, as it was sung in the time of Aretin; and in which each of the six syllables is exactly applied to the correspondent sound of the gamut, as may be seen in Fig. VI. Plate I.

It seems that the use of the six syllables of Guy was not very soon extended out of Italy, since Muris witnesses having heard in Paris, the syllables, pro, to, do, no, a, instead of those. But in time, those of Guy gained the day, and were received in France as in the rest of Europe. There is now Germany alone where they sol-fa by the letters of the gamut only, and not by syllables; so that the note which in sol-faing we call la, they call A; that which we call ut, they call C. For the diesis'd notes, they add an s to the letter, and pronounce that s is; so that, for instance, to sol-fa re diesis, they pronounce dis. They have also added the letter h, to remove the equivocation of fi, which is b only by being b flat; when it is b sharp, it is h.

They know in sol-faing no other b flat than that alone; instead of the b flat of every other note, they take the diesis of that

that which is below ; so for la b flat, they sol fa G s ; for mi b flat, D s ; and this method of sol-faing is so rough and confused, that one must be a German to make use of it, and to become by that means a great musician.

Since the establishment of the gamut of Aretin, they have endeavoured, at different times, to substitute other syllables in the room of his. As the voice of the three first is rather dull, Monf. Sauveur, in changing the method of pricking the notes, changed also that of sol-faing ; and named the eight notes of the octave by the eight following syllables, pa, ra, ga, da, so, bo, lo, do. These names had no better success than the notes ; but as to the syllable do, it was prior to M. Sauveur. The Italians have always used it, instead of ut, to sol-fa, though they name it *ut*, and not *do*, in the gamut. In regard to the addition of si, vide Si.

In regard to the notes changed by diesis or b flat, they convey the name of the note to the natural, and that causes, in the method of sol-faing, many difficulties, which M. de Boisgelou has proposed to remedy, by adding five notes to complete the chromatic system, and giving a particular name to each note. These names, with the ancients, are in all about twelve in number, as many as there are chords in this system, viz. ut, de, re, ma, mi, fa, si, sol, be, la, fa, si. By means of these five notes added, and of the names which they bear, all the b's flat and diesis's are annihilated ; as may be seen at the word System, in the exposition of that of Monf. de Boisgelou.

There are different methods of sol-faing, viz. by divisions, by transposition, and in the natural. The first method is the most ancient ; the second, the best ; and the third, the most general in France. Several nations have preserved, in the divisions, the ancient nomenclator of the six syllables of Aretin.

Others have retrenched them, as the English, who sol-fa on these four syllables only, mi, fa, sol, la. The French, on the contrary, have added a syllable to confine, under different names, all the seven diatonic sounds of the octave.

The inconveniencies of Aretin's method are considerable, for thro' the not rendering the gamut complete, the syllables of that gamut signify neither the fixed touches of the keys, nor the degrees of the tone, nor even the determined intervals. By the divisions, la fa, you may form an interval of major third in descending, or minor third in ascending, as may be easily seen by the gamut, &c. (Vide Gamut.)

It is still worse in the English method. We find every moment different intervals which cannot be expressed but by the same syllables ; and the same names of the notes return in every

fourth, as among the Greeks, instead of returning only at every octave, as in the modern system.

The method of *sol-fa*ing established in France, by the addition of *fi*, is certainly much superior to all this; for the gamut being found complete, the divisions become useless, and the analogy of the octaves is perfectly observed. But the musicians have again spoiled this method, by the strange imagination of rendering the names of the notes always fixed and determined on the touches of the keys; so that these touches have all a double name, whilst the degrees of a transposed tone have none: an error which loads, universally, the memory with all the *diefis's* or *B's* flat of the cleff; which removes from the names of the notes the expression of the intervals proper to them; and which effaces, lastly, as much possible, all the traces of modulation.

Ut or re are not, or ought not to be such, or such a touch of the keys, but such a chord of the tone. In regard to the fixed touches, it is by the letters of the alphabet that they are expressed. The touch which you call ut, I call C; that which you call re, I call D. They are not signs that I invent; they are signs entirely established, by which I very clearly determine the fundamental of a tone. But this tone being once determined, tell me, I beg, in your turn, how you name the tonic which I name ut, and the second note, which I name re, and the mediant, which I name mi?

For these names, relative to the tone and the mode, are essential for the determination of ideas, and the justness of the intonations. If we give it a due reflexion, we shall find, that what the French musicians call *to sol-fa in natural*, is entirely out of nature. This method is unknown in every other nation, and cannot certainly gain success in any; every one must feel the contrary, that nothing is more natural than to *sol-fa* by transposition when the mode is transposed.

We have, in Italy, a recueil of lessons to *sol-fa*, called *Solfeggi*. This recueil, composed by the celebrated Leo, for the use of beginners, is very highly esteemed.

**SOLO.** This Italian word is anglicised in music, and applied to a piece which is sung with a single voice, or which is played on one instrument, with a simple accompaniment of bass, or harpsichord; and this is what distinguishes the solo from the recital, which may be accompanied by the whole orchestra. In the pieces called concerto's, we write always the word solo on the principal part when it recites.

**SONATA.** A piece of instrumental music, composed of three or four consecutive pieces of different characters. The sonata is nearly for instruments, what the cantata is for the voice.

The



The sonata is ordinarily made for a single instrument which recites, accompanied by a thorough bass; and in such a composition, we are attached to whatever is most favourable to make the instrument splendid, for which we labour; whether by the turn of singing, or by the choice of the sounds which are most suitable to that kind of instrument, or by the boldness of the execution. There are also sonata's in trio, which the Italians generally call *sinfonie*; but when they pass three parts, or there is some one reciting, they take the name of concerto. (Vide Concerto.)

There are several kinds of sonata's. The Italians reduce them to two principal sorts: the one which they call *Sonate di Camera*, sonata's for a private room, which are composed of several familiar or dancing tunes; such nearly as those recueils which, in France, they call *suites*. The other kind is called *Sonate da Chiesa*, church sonata's, in the composition of which, there ought to enter more labour, pains, harmony, and airs more suitable to the dignity of the place. Of whatever kind the sonata's may be, they generally begin by an *adagio*; and after having passed by two or three different movements, finish by an *allegro*, or a *presto*.

Now, that instruments form the most important part of music, the sonata's are extremely *a-la-mode*, as well as every kind of symphony; the vocal is only accessory, and the air accompanies the accompaniment. We receive this ill taste from those who, wishing to introduce the turn of Italian music in a language not susceptible of it, have obliged us to endeavour to make with instruments, what was impossible for us to form with the voice. I dare to foretell, that so unnatural a taste cannot continue. Music, purely harmonic, is trifling: to please constantly, and prevent languor, it ought to be raised to the rank of imitative arts; but its imitation is not always immediate, as those of poetry and painting; the words is the method by which the music determines ofteneft the object whose image it offers us; and it is by the touching sounds of the human voice, that this image awakens in our souls the sentiment which it ought to produce. Who does not feel how far the pure symphony, in which we seek only to render the instrument brilliant, is from that energy? Can all the trifles of *Monf. Mondonville's* violin strike me as two sounds of *Mad. Le Maure's* voice? Symphony animates the music, and adds to its expression, tho' it does not supply the place of it. To know what all this fracas of sonata's would mean, with which we are loaded, we must do as the ignorant painter, who was obliged to write under his figures, "This is a tree." "This is a man." "And this is a horse."

SONG. A kind of very short lyric poem, which generally acts in agreeable subjects, to which a tune is added, to be sung on familiar

familiar occasions; as at table, with one's friends, with one's mistress, and even alone, to remove, for some moments, wearisomeness, if we are rich; and to support poverty and labour with more resolution, if poor.

The use of songs seems to be a natural consequence from that of words, and, in effect, is not less general; for wherever they speak, they sing. It is only necessary, for the conception of them, to extend the organs, give an agreeable turn to the ideas we are delighted with, and fortify by the expression, of which the voice is capable, the sentiments we would chuse to render, or the image we would paint. The ancients had not the art of writing at the time they had of singing. Their laws and their histories, the praises of their gods and heroes, were sung before they were written. And from thence it happens, according to Aristotle, that the same Greek name was given to the laws and songs.

All the lyric poetry was properly consisting of songs only; but I ought to confine myself here to speaking of that which bore this name particularly, and which had its character in the most complete manner, according to our ideas.

Let us begin by songs for the table. In the most distant times, says Monl. de la Nauze, all the guests, according to Dicearchus, Plutarch, and Artemon, sung together, and in the same strain, the praises of the Divinity. Wherefore, these songs were veritable pæans, or sacred cantics. The gods were not disturbers of their feasts, and thus disdained not to admit them to their pleasures.

In the end the guests sung successively, each in his turn, holding a branch of myrtle, which passed from the hand of him who had sung, to him who sung next. Lastly, when music was improved in Greece, and the lyre was used in feasts, there were, say the authors already cited, only the ingenious who were qualified to sing at table, at least, when accompanied by the lyre. The others, obliged to confine themselves to the branch of myrtle, gave rise to a Greek proverb, by which they said, that a man sung with the myrtle, when they would tax him with ignorance.

These songs accompanied with the lyre, and of which Terpan-der was the inventor, were called *scholiæ*, a word which signifies oblique, to denote, according to Plutarch, the difficulty of *the song*, or, as Artemon will have it, the irregular situation of those who sung; for, as they were obliged to be ingenious for this method of singing, each one did not sit in his rank, but only those who understood music, which were dispersed here and there, and placed obliquely with relation to each other.

The subjects of the *scholiæ* were drawn not only from love and wine, or pleasure in general, as at present, but from history also, war, and even morality. Such is the song of Aristotle on the death

death of Hermias, his friend and ally, which occasioned the author the accusation of impiety.

“ O virtue, who, spite of the difficulties which thou presentest  
 “ to impotent mortals, art the charming object of their searches !  
 “ Virtue pure and lovely ! Amongst the Greeks, a death for  
 “ thee was reckoned enviable ; the suffering with constancy a  
 “ dread calamity more than praise-worthy. Such are the seeds  
 “ of immortality which thou expandest over the heart. They  
 “ fruits are more to be valued than gold, than the love of pa-  
 “ rents, or the most tranquil slumbers. For thee the god-like  
 “ Hercules, and the son of Leda, endured ten thousand toils,  
 “ and the success of their exploits proclaimed thy power. It is  
 “ through love for thee that Ajax and Achilles descended to Plu-  
 “ tonian mansions ; and ’twas in view of thy celestial beauty  
 “ that the Prince of Atarnes deprived himself of Sol’s bright  
 “ beam : a prince immortalised for ever. The daughters of me-  
 “ mory shall ever sing his glory, when tuning their soft lyres to  
 “ hospitable Jove, and the value of a sincere and lasting friend-  
 “ ship.”

All their moral songs were not so grave as that : here is one of a different taste, taken from Athenæus.

“ The chief of all blessings is health ; the second, beauty ; the  
 “ third, riches honestly collected ; and the fourth, the juvenile  
 “ days we pass with our friends.”

In regard to the scholiæ, which consist of love and wine, we may judge of them by the seventy odes of Anacreon, which remain to us. But even in these kind of songs, we may see that love of their country and liberty most clearly shine, with which the Greeks were ever animated.

“ Wine and health, says one of these songs, for my Clitagora  
 “ and myself, with assistance from the Thessalians.” That is, besides that Clitagora was a Thessalian, the Athenians had formerly received succour from the Thessalians, against the tyranny of Pylistratides.

They had also songs for the different professions. Such were the songs of the shepherds ; one kind of which, called bucoliasm, was absolutely the song of those who drove the herds ; and the other, which is properly the pastoral, was an agreeable imitation of it. The song of the reapers, called the Lytierse, so called from the son of Midas, who took a pleasure in that employment. The song of the millers, called Hymee, or Epiaulia, as this taken from Plutarch, “ Grind, Mule, grind, for Pittacus, who reigns  
 “ in splendid Mitylene, delights in eating,” because Pittacus was a great Glutton. The song of the weavers, which was called Eline ; the yule song of the wool-carders ; that of the nurses, which was called Catabaucalesis, or Nunnia ; the song of  
 lovers,

lovers, called Nomion; that of the ladies, called Calyce; and Harpalyce, that of young girls. These two songs, by changing the sex, became also songs of love.

For particular occasions, they had the marriage song, called Hymenæa, Epithalamium; the song of Datis on merry occasions; for lamentations, the Jaleme; and Linos for funerals, and other mournful occasions. This Linos was sung also by the Ægyptians, and called by them Maneros, from the name of one of their princes, at whose burial it had been sung. By a passage of Euripides, cited by Athenæus, we may see that the Linos also might express joy.

Lastly, there were also hymns or songs in honour of the gods and heroes. Such were the Jule's of Ceres and Proserpine; the Philælia of Apollo; the upinges of Diana, &c.

This genus passed from the Greeks to the Latins, and several odes of Horace are gallant or bacchic songs. But this nation, more warlike than sensual, made, for a long time, but a trifling use of music and songs, and never approached on this point to the graces of the Greek.

It seems that music always remained rough and discordant amongst the Romans. What they sung at marriages, was rather a clamour than songs; and it cannot be presumed, that the satyrical songs of the soldiers, at the triumph of their generals, had a very agreeable melody.

The moderns have their songs also of different kinds, according to the genius and taste of each nation. But the French bore off the palm from the rest of Europe, in the art of composing them; if not for the turn and melody of the airs, at least for their wit, the grace and ingenuity of the words, tho' in general the wit and satyr, shew much better than the sentiment in such a composition. They pay more attention to this amusement, and have ever excelled in it. This happy people are always gay, turning every thing into merriment: their ladies are very gallant; the gentlemen very dissipated; and the country produces excellent wine. How can they then refrain from continually singing? We have still some ancient songs of Thibault, Comte de Champagne, the most gallant man of his time, set to music by Guillaume de Machault; Marot has made several which remain; and thro' favour of the airs of Orlando and Claudin, we have also several of the Pleyade of Charles IX. I shall make no mention of more modern songs, by which the musicians, Lambert, du Bouffet, la Garde, and others, have gained a name; and amongst whom we find as many poets as there are *Gens de Plaisir*, in a nation which is given most to it, though not all so celebrated as le Comte de Coulanges, & l'Abbe de Lattaignant. Neither have Provence and Lan-  
guedoc

guédoc degenerated from their first talents. We see in these provinces an air of gaiety reign throughout, which incessantly invites the people to singing and dancing. One of Provence, they say, menaces his enemy with a song, as an Italian would attack his with a rapier. Other Countries have also their provinces for singing. In Great-Britain, it is Scotland; in Italy, it is Venice.

Our songs are of several sorts, but in general on Love or Wine, or sometimes on Satyr. The love songs are, the tender airs which are also called serious; the romances, whose character is to move the soul insensibly by the tender and lively recital of some amorous and tragic history; the pastoral and rustic songs, many of which are made for dancing, as the Musettes, the Gavots, &c.

The drinking songs are generally airs of bass, or semi-breves for the table. It is with great reason that few are made for the treble, for there is not a viler and more disgusting idea of debauchery than a drunken woman.

In regard to satyric songs, they are comprized under the name of Vaudevilles, and dart their rays indifferently on vice and virtue, by rendering them equally ridiculous; which ought to proscribe the vaudeville from the lips of persons of morality.

We have also a kind of song which is called parody. These are words adjusted as we can, on airs of the violin, or other instruments, and which are rhymed either well or ill, without paying attention to the measure of the verses, or to the character of the air, or to the sense of the words, or even often to common delicacy. (Vide Parody.)

**SONOROUS.** Which renders a sound, "A sonorous metal" From thence, "A sonorous body". (Vide *corpo sonoro*.)

Sonorous is said particularly, and with excellence of all that renders mellow, strong, clear, just sounds, and well tuned. "A sonorous bell" &c.

**SOTTO VOCE.** This Italian word specifies, in the places in which it is written, that we must only sing a *demi-voix*, or play only a *demi jeu*. *Mezzo forte*, and *mezza voce*, signify the same thing.

**SOUND.** When the agitation communicated to the air by the collision of a body struck by another, reaches as far as the auditive organ, it produces a sensation called noise. But there is a resounding noise called sound. Searches on the absolute sound belong to the physician. The musician examines only the relative sound. He only examines by sensible modification, and it is according to this last idea, that we enquire into it in this article.

There are three principal objects to be considered in the sound; the tone, the force, and the modification. Under each of these relations the sound is conceived as modifiable. First from flat to

sharp ; secondly from strong to weak ; thirdly from sharp to sweet, or from the dull to the lively, and so reciprocally.

I first suppose, that whatever may be the nature of the sound, that its vehicle is the air itself ; in the first place, because the air is the only intermediary body of the existence, which we are perfectly assured of, between the sonorous body, and the auditive organ : since we must not multiply the beings without a necessity ; as the air is sufficient to explain the formation of the sound ; and, moreover, because experience teaches us, that a sonorous body renders no sound in a place quite deprived of air.

If we would imagine another fluid, we may easily apply to it all that I have said on the air in this article.

The resonance of the sound, or to speak more clearly, its permanence and prolongation, can arise only from the duration of the agitation of the air. As long as this agitation continues, the shaken air incessantly strikes the auditive organ, and by this means prolongs the sensation of the sound.

But there is not a more simple method of conceiving this duration, than by supposing in the air vibrations which succeed each other, and thus renew the impression every instant. Moreover, this agitation of the air, of whatever kind it may be, cannot be produced but by a similar agitation in the parts of the sonorous body. Moreover, it is a certain fact, that the parts of the sonorous body undergo such vibrations. If we touch the body of a violin-cello at the time we draw the sound, we feel it shake under our hand, and we see very sensibly, the vibrations of the chord continue till the sound is extinguished.

It is the same thing with a bell, which we make sound by striking it with the clapper ; we feel it, we see it even shake, and we perceive the grains of sand leap up, which are thrown on the surface.

If the chord loosens, or the bell bursts, there is more shaking and more sound. If then, neither this bell nor this chord can communicate to the air any movements, but what themselves have, we cannot doubt, but that the sound produced by the vibrations of the sonorous body, extends itself by similar vibrations which this body communicates to the air.

All this being supposed, let us first examine what constitutes the relation of sounds from flat to sharp.

I. Theon, of Smyrna, says that Lafus of Hermione, as well as the Pythagorean Hyppasus of Metapont, to calculate the relation of consonances, made use of two similar vessels, which resounded in unison. That leaving one of these empty, and filling a quarter of the other, the percussion of each produced the consonance of a fourth ; that, then filling the second a third, then again the half, the



the percussion of the second had produced the consonance of the fifth, then of the octave.

Pythagoras, according to Nichomachus and Censorinus, managed in another manner, the calculation of the same connections. He suspended, they say, different weights to the same sonorous chords, and determined the references of the different sounds, on those which he found between the hanging weights; but the calculations of Pythagoras are too just to have been made in this manner; since every one knows at present on the experience of Vincent Galilæus, that the sounds are together, not as hanging weights, but in the sub-double computation of these same weights.

Lastly, was invented the monochord, called by the ancients Canon Harmonicus, because it gave the rule of harmonic divisions. We must explain its principles.

Two chords of the same composition equal, and equally extended, form a perfect unison in every sense. If the lengths are unequal, the shortest will give a sharper sound, and make more vibrations in a given time; from whence we may conclude that the difference of sounds from sharp to flat, proceeds only by that of vibrations formed in the same space of time, by the chords or sonorous bodies which make them heard: wherefore we express the connections of sounds by the numbers of vibrations which give them.

We also know, by as certain experience, that the vibrations of the chord, equal in every other respect, are always reciprocal in the lengths. So the double chord of another, will make, at the same time only the half of the number of vibrations of the latter, and the relation of the sounds, which they will cause to be heard is called octave. If the chords are as 3 to 2, the vibrations will be as 2 to 3, and the connection of the sounds will be called fifth, &c. (Vide Interval.)

We see by this means, that with moveable bridges it is easy to form on a single chord, the divisions which produce sounds in all possible connections, whether together, or with the entire chord. This is the monochord which I have just mentioned. (Vide Monochord.)

We may render sharp or flat sounds by other means; two chords of equal length do not always form the unison, for if the one is greater or less extended than the other, it will form less vibrations in equal times, and consequently, will give a sharper sound. (Vide chord.)

It is easy to explain on these principles the construction of chord instruments, such as the Harpsichord, and the playing of Violins or Basses, which by the different impression of the fingers or moveable bridges on the chords, produces the diversity of sounds drawn  
from

from those instruments. We must reason in the same manner for the wind instruments. The holes, as in the flute and haut-boy, serve to shorten them, to render the sound more sharp. In giving more wind, they are made to octave, and the sound becomes still sharper. The column of air forms the sonorous body, and the different tones of the trumpet and french-horn, have the same principles as the harmonious sounds of the violincello and violin, &c, (Vide harmonic sound.)

If we make one of the grand chords of a violin or violincello resound with some force, in passing the fiddle-stick rather nearer to the bridge than ordinary, we shall hear distinctly, however little our ear may be exercised or attentive, besides the sound of the entire chord, at least that of its octave, that of the octave of its 5th, and that of the double octave of its third; we shall even see shake and resound all the chords, ascending to the unison of those. These accessory sounds always accompany any sound whatsoever, but when this principal sound is sharp, the other are less sensible.

We call these the harmonies of the principal sound; it is by them, according to Mons. Rameau, that every sound is appreciable, and 'tis in them that himself and Mons. Tartini, have sought the principle of all harmony, but by routs directly opposite. (Vide harmonic system.)

One difficulty which remains to be explained in the theory of the sound, is to know how two or more sounds may be heard at the same time. When we hear, for instance, the two sounds of the fifth, one of which forms two vibrations, whilst the other makes three, we cannot well conceive how the same mass of air may furnish at the same time these different numbers of vibrations distinct from each other; and still less, when it makes more than two sounds together, and that they are all dissonant with each other.

Mengoli and others manage the business by comparisons. It is the same thing, say they, as with two stones thrown in the water at the same time, and whose different circles lie cross ways without confounding each other. Mons. de Mairan, gives a more philosophical explanation. The air, according to him, is divided into particles of different sizes, each of which is capable of a peculiar tone, and susceptible of no other; so that in every sound which is formed, the particles of air analogous to it only, are shaken, those and their harmonies, whilst all the rest remain tranquil, till moved in their turn by sounds correspondent to them. So that we hear at the same time two sounds, as we see two colours; because, being produced by different parts, they affect the organ in different points.

This system is ingenious, but the imagination is with difficulty united to the infinity of the particles in the air, differing in size, and mobility,

mobility, which ought to be expanded in each point of the space, to be always ready on necessity, to render an infinity of all the possible sounds in every place. When they are once arrived at the drum of the ear, we have still less conception, how, in striking several together, they can produce a shake capable of conveying the sensation of each in particular to the brain. It appears, that this difficulty has been rather removed than resolved. They alledge in vain the example of light, whose rays meet in a point without confounding the objects; for, besides that one difficulty is not resolved by another, the simile is not exact, since the object is seen without exciting in the air a movement similar to that which a sonorous body must occasion to be heard. Mengoli seems desirous of preventing this objection, by saying that the masses of the air, charged, as it were, with different sounds, strike the drum only successively, alternately, and each in its turn, without paying too great attention, how he should employ those, which are obliged to wait till the first have discharged their office; or without explaining how the ear, struck with so many successive impressions, can distinguish those which belong to each sound. In regard to the harmonies which accompany any sound soever, they offer rather a new case of the precedent difficulty, than a separate embarrassment; for as soon as it is explained how many sounds may be heard at a time, we may easily explain the phenomena of harmonics. For instance, let us suppose that a sound puts in motion the particles of air susceptible of that same sound, and the particles susceptible of sharper sounds, *ad infinitum*, from these different particles, there will then be sounds, whose vibration beginning and finishing exactly with the sonorous body, will be continually aided and renewed by those of the other; these particles will be those which give the unison. Next comes the octave, whose two vibrations concurring with one of the principal sounds, are assisted and enforced by it from two to two: consequently, the octave will be sensible, but less than the unison. Then comes the twelfth, or octave of the fifth, which forms three precise vibrations, whilst the fundamental sound makes one; wherefore, receiving a fresh stroke only at each third vibration, the twelfth will be less sensible than the octave, which receives this fresh stroke at the second. By following the same gradation, we find the concurrence of vibrations more slow, the strokes less renewed, and consequently the harmonies always less sensible, until the references are composed to that point; that the idea of the concurrence not sufficiently frequent, be effaced, and the vibrations having the time to be extinguished before they are renewed, the harmonic is no longer heard at all.

Lastly, when the reference ceases to be rational, the vibrations no longer concur. Those of the sharper sound, always contrary,  
are

are very soon stifled by those of the chord, and this sharp sound is absolutely dissonant and null.

Such is the reason why the first harmonies are heard, and all the rest are not so. But I have written already too much on the first quality of the sound. Let us now pass on to the rest.

II. The force of the sound depends on that of the vibrations of the sonorous body, the more these vibrations are strong, the more vigorous the sound is, and is heard at the greater distance. When the chord is sufficiently extended, and the voice or instrument not too much forced, the vibrations always remain isochronous, and consequently the tone continues the same, whether we strengthen or weaken the sound; but in striking too forcibly with the bow, in slackening the chord too much, in singing too high, we may make the vibrations lose the necessary isochronism for the identity of the tone; and this is one of the reasons, why, in the French music, wherein the grand merit is to scream, we are more subject to sing false than in the Italian, where the voice is moderated with more sweetness.

The quickness of the sound, which would seem to depend on its force, does not so. This quickness is always equal, and constant, unless accelerated or retarded by the wind; that is to say, that the sound, strong or weak, will be always uniformly extended; and in two seconds will always go twice the distance it would do in one. According to Halley and Flampstead, the sound in England goes 1070 French feet in a second, and at Peru, 174 fathoms, according to Mons. de la Condamine. P. Merfenne, and Gassendi have assured us that a favourable or contrary wind neither accelerates or retards the sound; but since the experience that Derham and the Academy of Sciences have made on this subject, this passes as an error.

Without slackening the motion the sound is weakened in extending itself, and this weakening, if the propagation is free, if it is not prevented by any obstacle, or slackened by the wind, ordinarily follows the reason of the square of distances.

III. In regard to the difference, which is found also between the sounds by the quality of the modification, it is evident, that it holds neither to the degree of elevation, nor even to that of the force. It will be in vain for a hautboy to place itself in unison with a flute, it will be in vain to sweeten the sound to the same degree. The sound of the flute will always have, a *je ne sais quoi* of mellow and sweet, that of the hautboy something rude and sharp, which will prevent the ear from confounding them; without mentioning the diversity of the modification of the voice. (Vide Voice.)

There is not an instrument which has not its peculiar tone, which has no connection with that of another, and the organ alone has

Twenty methods of playing all of a different modification. No one, however, that I know of has examined the sound in this particular; which as well as the rest will perhaps be found to have some difficulties; for the quality of the modification cannot depend, either from the number of vibrations, which forms the degree from flat to sharp, or from the greatness or force of these same vibrations, which forms the degree from strong to weak. We must then find in the sonorous body a third different cause from these two, to explain this third quality of the sound, and its differences; which perhaps, is not too easy.

The three principal qualities which I have mentioned enter all, though in different proportions, into the object of music, which is sound in general.

In effect, the composer does not only consider if the sound which he uses ought to be high or low, flat, or sharp, but if they ought to be strong or weak, disgusting or sweet, dull or pleasing: and he distributes them to different instruments and different voices, in recitatives or chorusses, at the extremities or in the medium of the instruments or voices, with the *dolce* and *forte*, according as these are suitable.

But it is true, that it is only in the comparison of sounds from flat to sharp, that the whole harmonic science consists; so that, as the number of sounds is infinite, we may say in the same sense, that this science is infinite in its objects. We conceive no precise sounds to the extent of sounds from flat to sharp, and however small the interval may be, which is between two sounds, we shall always conceive it divisible by a third sound; but nature and art have limited this infinity in the practice of music. We very soon find in instruments, the bounds of practicable sounds, as well in flat as in sharp. Lengthen or shorten a sonorous chord to a certain point, it will have no more a sound. We can neither augment or diminish, at will, the capacity of a flute, or the pipe of an organ, neither its length. There are bounds passed which neither can any longer resound. The breathing has also its measure and its laws. When too weak, it renders no sound, when too strong, it produces only a piercing cry, which it is impossible to appreciate. Lastly, it is agreed, by a thousand experiences, that all sensible sounds are confined within a certain latitude, passed which, either too flat or too sharp, they are no longer perceived, or become inappreciable to the ear. *Monf. Euler* has, in some respects, fixed its limits; and according to his observations, shewn by *Monf. Diderot*, in his principles of the acoustics, all sensible sounds are comprized between the numbers 30 and 7552; that is to say, that, according to this great geometrician, the flattest sound perceptible to the ear forms 30 vibrations a second,  
and

and the sharpest 7552 vibrations at the same time ; an interval, which nearly comprehends eight octaves.

On the other hand, we see by the harmonic generation of sounds, that amidst their infinity, there are very few which can be admitted into the harmonious system. For all those which do not form consonances with the fundamental sounds, or which do not arise mediately or immediately, from the differences of these consonances, ought to be proscribed from the system. This is the reason, that however perfect ours may be supposed at present, it is however bounded to twelve sounds only in the extent of an octave ; from which twelve, all the other octaves contain no more than repliques. If we chuse to reckon all these repliques for so many different sounds, in multiplying them by the number of octaves, to which the extent of appreciable sounds is confined, we shall find ninety-six in all, as the greatest number of practicable sounds in our music on the same fundamental sound.

We could not reckon, with the same precision, the number of sounds practicable in ancient music. The Greeks formed, as it were, as many systems of music as they had different methods of tuning their tetrachords. It appears, by reading their treatises of music, that the number of these methods was great, and perhaps undetermined. Moreover, each particular concord changed the sounds of half the system, that is, of two moveable chords in each tetrachord. So that we plainly see, that they had sounds in a single method of concord ; but we cannot justly calculate how much this number was multiplied in all the changes of genus and mode which introduced new sounds.

In regard to their tetrachords, they distinguished the sounds into two general classes, viz. the stable and fixed sounds, whose concord never changed ; and the moveable sounds, whose concord changed with the nature of the genus. The first were eight in all, viz. the two extremes of each tetrachord, and the chord proslambanomenos ; the second were also at least eight in number, sometimes nine or ten, because two adjoining sounds were sometimes confounded in one, and sometimes separated.

In the pycni genera, they divided the stable sounds into two kinds ; one of which contained three sounds, called apycni, because they formed neither semi-tones, or smaller intervals in flat ; these three sounds apycni, were the proslambanomenos, the nete synnemenon, and the nete hyperboleon. The other kind took the name of sounds barypycni, because they formed the flat of the smaller intervals : The sounds barypycni were five in number, viz. the hypate hypaton, the hypate meson, the mesis, the paramesis, and the nete diezeugmenon.

The



the moveable tones were subdivided in the same manner into mesophycni sounds, which were also five in number, viz. The second in ascending of each tetrachord; and in five other sounds called oxiphycni, which were the third in ascending of each tetrachord. (Vide Tetrachord.)

In regard to the twelve sounds of the modern system, their concord never change, and they continue immovable. Brossard pretends, that they are all moveable, founding it on their being to be changed by diesis or B flat; but it is one thing to change the chord, and another to change the concord of the chord.

**FIXED SOUND.** To have what we call a fixed sound, we must be assured, that this sound would always be the same, in all times and in all places. Moreover, we must not think it sufficient for this purpose, to have a pipe, for instance, of a determined length; for first, the pipe always continuing the same, the weight of the air will nevertheless change; the sound will alter and become flatter or sharper according as the air is lighter or heavier. For the same reason, the sound of the same pipe will again change with the column of the atmosphere, according as this same pipe is raised or lowered, in mountains or in vallies.

In the second place, this pipe, whatever may be its composition, will be subject to the variations that heat and cold causes in the dimensions of every body. The pipe shortening or lengthening itself, will become proportionally sharper or flatter; and from these two combined causes, comes the difficulty of having a fixed sound, and the almost impossibility of being assured of the same sound, in two places at the same time, or twice in the same place.

If we could reckon exactly the vibrations which a sound makes in a given time, we might, by the same number of vibrations, be assured of the identity of the sound; but this calculation being impossible, we can only certify the identity of the sound by that of the instruments which give it, viz. The pipe, in regard to its dimension; and the air, as to its weight. Monf. Sauveur proposed, for this purpose, a method, which by experience did not succeed. Monf. Diderot has since proposed some more practicable, and which consists in graduating a pipe of a sufficient length, that its divisions may be just and sensible, in composing it by two moveable parts, by which it may be lengthened or shortened, according to the dimensions proportional to the alterations of the air, expressed by the thermometer, in regard to their temperature, and by the barometer as to their weight.

Vide the principles of acoustics by that author to form a judgment of it.

**FUNDAMENTAL SOUND.** A fundamental sound is that which serves as a foundation to the concord. (Vide Concord,) or to the tone. (Vide Tone.)

P p p

Fundamental

Fundamental bass, is that which serves as a foundation to Harmony. (Vide Fundamental Bass.)

A fundamental concord is that whose bass is fundamental, and whose sounds are arranged according to the order of their generation; but as this order removes the parts extremely, we connect them by combinations or variations, and provided that the bass continues the same, the concord does not on that account fail to bear the name of fundamental.

Such is, for instance, this concord *ut mi sol*, confined in an interval of 5th, whereas in the order of its generation *ut sol mi*, it comprehends a 10th, and even a 17th, since the fundamental *ut* is not the 5th of *sol*, but the octave of that 5th.

**HARMONIC SOUNDS.** A singular kind of sounds, which are drawn from certain instruments, such as the violin and the violincello, by a particular motion of the fiddle-stick, which is drawn nearer to the bridge, and the finger lightly placed on certain divisions of the chord. Their sounds are very different for their modifications and for the tone, from what they would be, if the finger was constantly fixed. In regard to the tone, for instance, they will give the 5th, when they would have given the 3d, the 3d, when they would give the 6th, &c. As to the modifications, they are much sweeter than those which are drawn full from the same division, by carrying the chord towards the sleeve, and on account of this sweetness, they are called fluted sounds. One must, to have a clear judgment of them, have heard *Monf. Mondonville* draw on his violin, or *Monf. Bertaud* on his violincello, the consequences of these beautiful sounds. By sliding the finger slightly from sharp to flat, from the middle of a chord which we touch at the same time with the bow in the aforesaid manner, we hear distinctly a succession of harmonic sounds from flat to sharp; which very much astonishes those unskilled in the theory of them.

The principle on which this theory is founded, is, that a chord being divided into two commensurable parts together, and consequently with the entire chord, if the obstacle which is placed at the point of division hinders only imperfectly the communication of vibrations from one part to another, every time that the chord is sounded in this state, it will not render the sound of the entire chord, nor that of its greater part, but that of the smaller part, if it measures exactly the other; or, if it does not measure it, the sound of the greatest aliquot common to these two parts.

Let a chord 6 be divided into two parts 4 and 2, the harmonic sound will resound by the length of the small part 2, which is aliquot of the greater part 4; but if the chord 5 is divided by 2 and 3, then as the small part does not measure the greater, the harmonic sound will only resound, according to the half 1 of this  
same

same smaller part, which half is the greatest common measure of the two parts 3 and 2, and of the whole chord 5.

By means of this law drawn from observation, and conformable to the tryals made by Monf. Sauveur, at the Academy of Sciences, all the marvellous disappears. With a very simple calculation, we assign to each degree the harmonic sound which answers to it. In regard to the finger sliding the length of the chord, it gives only a continuance of harmonic sounds, which succeed each other rapidly in the order they ought to have according to that of the divisions on which we pass the finger successively, and the points which form no exact divisions, or which form those that are too composed, give no sensible or appreciable sound.

*A Table of Harmonic Sounds sensible and appreciable on the Violincello.*

The chord á vidi	} gives {	The unison.
The minor third		The 19th or double octave of the fifth.
The major third		The 17th or double octave of the same major third.
The fourth		The double octave.
The fifth		The 12th or octave of the same fifth.
The minor sixth		The triple octave.
The major sixth		The 17th major or double octave of the third.
The octave		The octave.

We here find a table of harmonic sounds, which may facilitate the search of them, to those who desire to practice them. The first column denotes the sounds which the divisions of the instruments would render when touch'd in full; and the second, the fluted sounds corresponding when the chord is harmonically touch'd.

After the first octave, that is, after the middle of the chord, advancing towards the bridge, we again find the same harmonic sounds in the same order, on the same divisions of the sharpest octave, that is, the nineteenth on the minor tenth, the seventeenth on the major tenth, &c.

I have made, in this table, no mention of the harmonic sounds relative to the second and seventh; first, because the divisions which form them, having only very small aliquots together, would render their sounds too sharp to be agreeable, and too difficult to be drawn by the stroke of the fiddle stick; and moreover, because one must enter into the sub-divisions too much extended, which cannot be admitted but in practice; for the harmonic sound of the major tone would be the twenty-third, or the triple octave of the second; and the harmonic of the minor tone would be the twenty-fourth, or triple octave of the minor third: But what ear

is fine enough, and what hand sufficiently just, to distinguish and touch, at will, a minor or a major tone?

The whole play of the marine-trumpet is in harmonic sounds, which is the reason that we cannot draw every kind of sound from it with ease.

**TO SOUND.** We say, in composition, that a note sounds on the bass, when it enters into the concord and forms a harmony, allowing the difference of the notes, which are those of taste, and serve only to figure, but have no sound. We also say, to sound a note, or a concord, to express the striking or causing a sound to be heard, the harmony of that note or that concord.

**SOURDINE.** A small instrument of copper or silver, which is applied to the bridge of a violin or violincello, to render the sounds weaker, by intercepting and preventing the vibrations of the entire body of the instrument. The sourdine, by weakening the sounds, changes their modification, and gives them an exceeding moving and mournful character. The French musicians, who think that a sweet play produces the same effect as the sourdine, and who do not admire the trouble of placing and displacing, make no use of it; but they make use of it with great effect in all the orchestras of Italy; and it is because the word *sordini* is found very often in their symphonies, that I have made an article of it. There are *sordini* also for the French-horn, for the harpsichord, &c.

**SPACE.** A fair interval, or distance, which is found in the stave between a line, and that which follows it immediately above or below. There are four spaces in the five lines, and two besides, the one above, the other below the entire stave: We find, when necessary, these two indefinite spaces, by additional lines added above or below, the which augment the extent of the stave, or furnish new spaces. Each of these spaces divides the interval of two lines which terminate it, into two diatonic degrees, viz. one from the inferior line to the space, and the other from the space to the superior line. (Vide Stave.)

**SPICCATO.** An Italian word, which, written on music, denotes strong and well detached sounds.

**SPONDAULA.** Was, amongst the ancients, a player on the flute, or some other similar instrument, who, while the sacrifice was offered, played in the ear of the priest some suitable air, to prevent his listening to any thing which might interrupt him.

This word is formed from the Greek *σπονδής*, a libation, and *αυλός*, a Flute.

**SPONDIASM.** Was, in the most ancient Greek music, an alteration in the harmonic genus, when a chord was accidentally elevated

elevated three diesis's above its ordinary concord, so that the spondiasm was precisely the contrary to the Eclyfis.

**STABLE.** The stable chords or sounds were, besides the chord proflambanomenos, the two extremes of each tetrachord, which extremes founding the diatepason or fourth together, the concord never changed, as did that of the chords in the middle, which were extended or slackened, according to the genera, and on that account were called moveable chords or sounds.

**STAVE** The stave or line of music is composed of five parallel lines, on or between which the different positions of the notes mark their intervals or degrees. The stave of church-music has only four lines: It formerly had eight, according to Kircher, each marked with a letter of the gamut; so that there was only one conjoint degree from one line to another: When the degrees were doubled, by placing notes in this manner in the intervals, the stave of eight lines being reduced to four, was found of the same extent as before.

To this number of five lines in music, and four in that of the church, are added, additional or accidental lines, when necessary, and the notes pass the extent of the stave above or below. This extent, in a stave of music, is in the whole of eleven notes forming ten diatonic degrees, in church-music of nine notes forming eight degrees. (Vide Cleff, Notes, Lines.)

**STOP.** Is the termination of the phrase, on which termination the air reposes, more or less perfectly. The stop cannot be established but by a full cadence; if the cadence is avoided, there can be no true stop: for it is impossible for the ear to repose on a dissonance. We see by this means, that there are precisely as many kinds of stops, as sorts of full cadences (Vide Cadence,) and these different stops produce in music, the effect of the punctuation in discourse.

Some confound, very improperly, the stops with the silences, tho' these two things are very different.

**STRUCK.** This is the time when the hand or foot is lowered, and when we beat to mark the measure. (Vide Thesis.) We strike with the foot in general only the first time of each measure, but those who cut in two, the measure of four, strike also the third. In striking the measure with the hand, the French never beat but in the first time, and mark the rest by different movements of the hand; but the Italians strike the two first of the measure of three, and raise the third. They strike in the same manner the two first in the measure of four, and raise the two others. These movements are more simple, and appear more convenient.

**STYLE.** The distinctive character of composition or execution. This character varies greatly, according to the countries, the taste  
of

of the people, the genius of authors, &c. according to matter, place, subject, expression, &c.

We say, in France, the style of Lully, of Rameau, of Mondonville, &c. In Germany, the style of Haffé, of Gluck, of Graun. In Italy, the style of Leo, of Pergoleſi, of Jomelli, of Buranello. The style of church-music is not the same as that for the theatre or a private room. The style of German compositions is lively, divided, but harmonious. That of the French composition is flat, rough, ill cadenced, monotonous. That of the Italian compositions, flourishing, pleasing, energetic.

The dramatic or imitative style is proper for exciting or painting the passions. The style of the church is serious, majestic, grave. The style of the Motet, where the artist affects to shew himself as such, is more classic and ingenious, than energetic and affecting. The hyporchematic style is peculiar to joy, pleasure, dancing, filled with lively movements, gay and well expressed. The symphonic or instrumental style. As every instrument has its touch, its fingering, its character peculiar to it, it also has its style. The melismatic or natural style, which is first presented to persons who have not yet studied. The style of fantasy, little united, filled with ideas, free from every constraint. The choraic or dancing style, which is divided into as many different branches as there are characters in dancing.

The ancients had also their different styles. (Vide Mode and Melœpea.)

**SUB-DOMINANT.** A name given, by Mons. Rameau, to the fourth note of the tone, which is, consequently, in the same interval of the tonic in descending, as is the dominant in ascending. This denomination happens from the affinity which this author finds by variation, between the minor mode of the sub-dominant, and the major mode of the tonic. (Vide Harmony.)

**SUB-MEDIANT.** Is also, in Mons. Rameau's Vocabulary, the name of the sixth note of the tone. But this sub-median, as it ought to be in the same interval of the tonic below, as is the mediant above, should form a major third under this tonic, and consequently minor third on the sub-dominant, and it is on this analogy that the same Mons. Rameau establishes the principal of the minor mode; but it would follow from thence, that the major mode of a tonic, and the minor mode of its sub-dominant, must have a great affinity; which is no such thing: since, on the contrary, it is very seldom, that we pass from one of these two modes to another, and that the almost entire scale is altered by such a modulation.

I may be deceived in the acceptation of these two precedent words, not having Mons. Rameau's writings before me whilst I write this article. He, perhaps, understands simply by sub-dominant,



nant, the note, which is a degree below the dominant; and by sub-mediante, the note which is a degree below the mediant. What keeps me in suspense between these two senses, is, that in each the sub-dominant is the same note fa for the tone of ut, but it would not be the same thing with the sub-mediante: It would be la in the first sense, and re in the second. The reader may verify which of the two is Mons. Rameau's: what may be depended on, is, that what I have given is preferable for the use of composition.

**SUBJECT.** A term of composition. This is the principal part of the design, the idea which serves as a foundation to all the rest. (Vide Design.)

All the other parts require only art and labour: this depends only on the genius, and, 'tis in this, that invention entirely consists. The principal subjects in music, produce Rondeau's, Imitations, Fugues, &c. (Vide those Words.)

A barren and cold composer, after having discovered with difficulty some scattered subject, only turns it and changes it from modulation to modulation; but the artist who has fire, and a clear imagination, without suffering his subject to be forgotten, gives it a new air every time it is represented.

**SUPERFICIES.** A combination, either of the sounds of a concord, beginning by one of those sounds, and taking the rest according to their natural connection, or, from the touches of the keys which form the same concord. From whence it follows, that a concord may have as many superficieses as there are sounds which compose it, for each may be the first in its turn.

The perfect concord ut mi sol, has 3 superficieses. By the first all the fingers are ranged by thirds, and the tonic is under the index; by the second mi sol ut, there is a fourth between the two last fingers, and the tonic is under the last; by the third sol ut mi, the fourth is between the index and fourth finger, and the tonic is under the latter. (Vide Variation.)

As the dissonant accords have generally four sounds, they have also four superficieses, which may be found with the same facility.

**SUPERSUS.** A name formerly given to trebles when they were very sharp.

**SUPERNUMERARY.** Was the name of the lowest chord in the Greek system; they called it also in their language proslambanomenos. (Vide that Word.)

**SUPPOSITION.** This word has two senses in music. First, when several notes ascend or fall diatonically in a part on the same note of another part; these diatonic notes cannot then all form a harmony, or enter at the same time into the same concord. There are some then counted for nothing, and those are the notes foreign to harmony which are called notes by supposition.

The

The general rule is, when the notes are equal, that all those which strike on the strong time bear the harmony, those which pass on the weak time are notes of supposition, which are placed for the air only, and to form conjoint degrees. Take notice that by strong and weak time, I understand less the principal times of the measure than the parts themselves of each time. So, if there are two equal notes in a same time, it is the first which bears the harmony: the second is of supposition. If the time is composed of four equal notes, the 1st and 3d bear the harmony, and the 2d and 4th are the notes of supposition, &c.

Sometimes this order is perverted: we pass the first note by supposition, and we make the second borne, but then the powers of this second note are generally augmented by a point at the expence of the first.

All this always supposes a diatonic movement by conjoint degrees; for when the degrees are disjoint, there is no supposition, and all the notes ought to enter in the concord.

Secondly, we call concords by supposition, those where the thorough bass adds or supposes a new sound below the fundamental bass: which occasions that such concords always exceed the extent of the octave. The dissonance of concords by supposition should be always prepared by syncope's, and saved in descending diatonically on the sounds of a concord, under which the same supposed bass may act as fundamental bass, or, at least as thorough bass. Which occasions the concords by supposition, well examined, may all pass as pure suspensions. (*Vide Suspension.*)

There are three sorts of concords by supposition. All are concords of the 7th: The first, when the added sound is a third below the fundamental, such is the concord of the 9th, if the concord of the 9th is formed by the mediant added below the sensible concord in the minor mode, the concord then takes the name of superfluous 5th.

The second kind is when the supposed sound is a 5th below the fundamental, as in the concord of 4th, or 11th, if the concord is sensible and the tonic supposed, the concord takes the name of superfluous 7th.

The third kind is that where the supposed sound is below a concord of diminished 7th, if it is a third below, that is, that the supposed sound be the dominant, the concord is called concord of second minor and third major. It is very little in use, if the sound added is a fifth below, or that this sound be the mediant, the concord is called concord of 4th, or superfluous 5th, and if it is a 7th below, that is, the tonic itself, the concord takes the name of minor 6th and superfluous 7th.

In

In regard to the variations of these different concords, where the supposed sound is transported in the superior parts, being admitted only by licence, they ought only to be practised with choice and circumspection. We may find at the word concord all those which may be tolerated.

**SUSPENSION.** There is suspension in every concord on the bass, from which we sustain one or more sounds of the precedent concord, before we pass to those which belong to it; as if, when the bass passes from the tonic to the dominant, I prolong some moments on that dominant, the concord of the tonic which precedes it before, resolving it on its own, it is a suspension.

There are suspensions which are cyphered and enter into harmony.

When they are dissonant, they are always concords by supposition, other suspensions are only of taste; but whatever may be their nature, we ought always to subject them to the three following rules.

I. The suspension ought always to be made on the stroke of the measure, or at least on a strong time.

II. It ought always to be diatonically resolved, whether in ascending or falling, that is, that each part, which has suspended, ought not immediately to ascend or fall, but a degree to arrive at the natural concord of the note of the bass, which has borne the suspension.

III. Every suspension cyphered ought to be saved in descending, except the single sensible note, which is saved in rising.

By the method of these precautions there is no suspension but what may be practised with success, because in that case the ear, presenting on the bass the movement of the parts, supposes beforehand the concord which follows. But it belongs to the taste alone to choose and distribute, a propos, the suspensions in singing and harmony.

**TO SUSTAIN.** Is to make the sounds continue exactly their whole powers, without suffering them to be extinguished before the end, as musicians very often do, and particularly symphonists.

**SYLLABLE.** This name has been given by some of the Ancients, and Nichomachus amongst the rest, to the consonance of the fourth, which they commonly called diatessaron. Which also proves by etymology, that they looked upon the tetrachord as we do on the octave, as comprehending all the radical or composed sound.

**SYMPHONIST.** A composer of Church music. This term is become technical since it has been used by Mons. L'Abbe le Beuf.

**SYMPHONY,** This word, formed from the Greek *σύν* with, and *φωνή* sound, signifies, in ancient music, that union of the sounds

which form a concert. It is a sentiment received, and, I believe demonstrated, that the Greeks understood not the harmony in the sense which we at present give to this word.

Their symphony formed no concords, but resulted from the concurrence of several voices or instruments, or of instruments joined with the voice, singing or playing the same part. This was done two ways, where the whole concerted in unison, and the symphony was then more particularly called homophony, where the half of the concertants was in the octave, or even in the double octave of the other, and this was called antiphony. We find the proof of these distinctions in the problems of Aristotle, Section 19.

At present, the word symphony is applied to all instrumental music, as well for pieces which are destined only for instruments, as Sonata's and Concerto's, as for those, where the instruments are found mixed with the voice, as in our Opera's, and in several sorts of music. We distinguish vocal music into music without symphony, which has at least a treble of instruments, violins, flutes, or hautboys. We say of a piece, that it is in grand symphony, when, besides the bass and treble it has also two other instrumental parts, viz. tenor, and 5th of the violin.

The music of the King's Chapel, that of several Churches, and of the Opera-House, are almost always in grand symphony.

**SYNAPHE.** The conjunction of two tetrachords, or more precisely the resonance of 4th or diatessaron, which is made between the homologous chords of two conjoint tetrachords. Wherefore, there are three synaphes on the system of the Greeks. The one between the tetrachord of the hypates, and that of the mesis : the other, betwixt the tetrachord of the mesis and that of the conjoint, and the third between the tetrachord of the disjoint and that of the hyperboles. (Vide System, Tetrachord.)

**SYNAULIA.** A concert of several musicians, who, in Ancient music, played and answered each other alternatively on flutes, without any union of the voice.

Monf. Malcolm, who doubts whether the Ancients had a music composed only for instruments, does not fail to cite this synaulia from Athenæus, and he is in the right ; for these synaulias were no more than a vocal music played by instruments.

**SYNCOPE.** A prolongation on the strong time of a sound begun on the weak time ; wherefore, every syncopated note is in counter time, and every collection of syncopated notes is a movement in counter time.

We must take notice that the syncope does not exist less in harmony, tho' the sound which forms it, instead of being continued should be struck by two or more notes, provided that the disposition of these notes which repeat the same sound, be conformable to the definition.

The

The syncope has its uses in melody, for the expression and taste of singing, but its principal utility is in the harmony for the practice of dissonances. The first part of the syncope serves for the preparation. The dissonance is struck on the second, and in a succession of dissonances, the first part of the following syncope serves at the same time to save the dissonance which precedes, and to prepare that which follows.

Syncope is from σὺν with and κόπτω I cut, because the syncope cuts off from each time, opposing, as it were with the other. Mons. Rameau derives this word from the noise of the sounds which knock against each other in some kind of dissonance; but the syncopes are anterior to our harmony, and there are often syncopes without a dissonance.

SYNNEMENON. Is the name which the Greeks gave to their third tetrachord, when it was conjoint with the second, and divided from the fourth; when on the contrary, it was conjoint to the fourth and divided from the second, this same tetrachord took the name of diezeugmenon. (Vide that Word.)

SYNNEMENON DIATONOS. Was, in Ancient music, the third chord of the tetrachord synnemenon in the diatonic genus, and as that third chord was the same as the second of the tetrachord of disjoints, it bore also in this tetrachord the name of trite diezeugmenon. (Vide Trite, System, Tetrachord.)

This same chord, in the two other genera, bore also the name of the genus in which it was used, but then it was not confounded with the trite diezeugmenon. (Vide Genus.)

SYNTONIC. Is the epithet by which Aristoxenes distinguishes that of the two spaces of the ordinary diatonic genus, whose tetrachord is divided into a semi-tone and two equal tones; whereas in the flat diatonic, after the semi-tone, the first interval is three quarters of a tone, and the other five. (Vide Genus, Tetrachord.)

Besides the syntonic genus of Aristoxenes, called also diatono diatonic, Ptolemy establishes another, by which he divides the tetrachord into three intervals. The first of a semi-tone major; the second of a tone major; and the third of a tone minor. This syntonic diatonic of Ptolemy remains, and it is also the only diatonic of Didymus, allowing this difference, that Didymus having placed this minor tone in flat, and the major tone in sharp, Ptolemy varied that order.

We may see, with a cast of the eye the difference of these two syntonic genera, by the connections of the intervals which compose the tetrachord in each.

$$\text{The Syntonic of Aristoxenes} \quad \frac{3}{20} + \frac{6}{20} + \frac{6}{20} = \frac{3}{4}$$

$$\text{The Syntonic of Ptolomy} \quad \frac{15}{16} + \frac{8}{9} + \frac{9}{10} = \frac{3}{4}$$

There were also other syntonics, and they reckoned 4 principal kinds, viz. The ancient, the reformed, the tempered, and the equal. But it is losing time, and abusing that of the reader, to examine every one of these divisions

**SYNTONO LYDIAN.** The name of one of the modes in ancient music. Plato says, that the mixo-lydian modes and syntono-lydian are peculiar to tears.

We see in the first book of Aristides Quintilian a list of the different modes which we must not confound with the tones which bear the same name, and which I have spoken of at the word mode, to be conformable to the modern custom introduced very improperly by Glarean. The modes were different methods of varying the order of intervals. The tones differed as at present by their fundamental chords. It is in the first sense that we must understand the syntono lydian mode of which Plato speaks, and of which, besides, we have no other explanation.

**SYSTEM.** This word having several acceptations, will oblige me to render it a very long article.

To begin by the proper and technical sense, I shall first say that the name of system was given to every composed interval, or conceived as composed of other smaller intervals, which considered as the elements of the system, are called diasteme.

There are an infinity of different intervals, and consequently an infinity also of possible systems. To confine myself here to something real, I shall only speak of the harmonic systems, that is of those, whose elements are either consonances, or differences of consonances, or differences of those differences. (Vide Interval.)

The ancients divided the systems into general and particular. They called *particular system*, all that was composed at least of two intervals; such as are or may be conceived, the octave, the 5th, the 4th, the 6th, and even the third. I have spoken of the particular systems at the word interval.

The general systems, which were more commonly called diagrams, were formed by the sum of all the particular systems, and consequently comprehended all the sounds used in music. I confine myself here to the examination of their system in the diatonic genus; the difference of the chromatic and enharmonic being sufficiently explained in their articles,

We



We ought to judge of the condition and progress of the ancient system, by those of the instruments destined for their execution.

For these instruments accompanying the voice in unison, and playing all which they sung, must form as many different sounds as there entered into the system.

The chords of these first instruments were always touched, *a vide*, there were then as many chords necessary as the system contained sounds, and 'tis by this means that, since the origin of music, we may determine on the number of the chords of the instrument, the number of the sounds in the system.

The whole system of the Greeks was at first composed only of four sounds at the most, which formed the concord of their lyre or cithara. These four sounds according to some, were by conjoint degrees, according to others they were not diatonic; but the two extremes sounded the octave, and the two middle divided it into a fourth on each side, and a tone in the middle, in the following manner :

Ut	——	Trite Diezeugmenon
Sol	——	Lichanos Meson
Fa	——	Parhypate Meson
Ut	——	Parhypate Hypaton

This is what Boetius calls the tetrachord of Mercury, tho' Diordorus advances that Mercury's lyre had only three chords. This system did not long continue confined to so few sounds. Chorebe, Son of Athis, King of Lydia, added a 5th chord; Hyagnis a 6th; Terpander a 7th to equal the number of the planets; and lastly, Lychaon of Samos, an 8th.

This is what Boetius says: but Pliny says that Terpander having added three chords to the four ancient, played first on the cithara with 7 chords; that Simonides joined to it an 8th, and Timotheus a 9th. Nicomachus the Gerasinian attributes this 8th chord to Pythagoras, the 9th to Theophrastus of Pieria, then a 10th to Hyftæus of Colophon, and an 11th to Timotheus of Milet. Pherecrates in Plutarch makes a more rapid progress to the system; he gives 12 chords to the system of Menalippedes, and as many to that of Timotheus. And as Pherecrates was contemporary with this great musician, supposing him effectually to have said what Plutarch makes him say, his witnessing is of great weight on a fact which he had before his eyes.

But how can we be assured of the truth amid so many contradictions, either in the doctrine of authors, or in the order of facts as they are reported? For instance, the tetrachord of Mercury evidently gives the octave on the diapason. How then could it be, that after the addition of three chords, the whole diagram should be found diminished a degree, and reduced to an interval of 7th?

This

This is however what the generality of authors would seem to understand, and amongst the rest Nicomachus, who says that Pythagoras finding the whole system composed only of two conjoint tetrachords, which between their extremities formed a dissonant interval, rendered it consonant, in dividing these two tetrachords by the interval of a tone, which produced the octave.

However it be, it is a certain thing at least, that the system of the Greeks was insensibly extended as well above or below, and that it attained and even passed the extent of the dis-diapason or double octave, an extent which they called *systema perfectum*, maximum, immetatum, the grand system, the perfect system; so that betwixt its extremities, which formed together a perfect consonance were contained all the simple consonances, double, direct, and varied, all the particular systems, and according to them, the greatest intervals which can have place in melody.

This entire system was composed of four tetrachords, 3 conjoint, and 1 disjoint, and a tone besides, which was added below all to compleat the double octave, from whence the chord which formed it, took the name of *Proslambanomenos* or added. This could not, it seems have produced more than 15 sounds in the diatonic genus; It has however formed 6. This is that the disjunction making itself perceived, sometimes between the second and third tetrachord, sometimes between the third and fourth; it happened in the first case, that after the sound *la*, the sharpest of the second tetrachord, followed in ascending the *si* natural which began the third tetrachord; or, in the second case, that this same sound *la* beginning itself the third tetrachord, was immediately followed by *si b flat*; for the first degree of each tetrachord in the diatonic genus, was always of a semi-tone. This difference produced then a 16th sound on account of the *si*, which was natural on one side, and *b flat* on the other.

The 16 sounds were represented by 18 names; that is to say, that the *ut* and *re* being either sharp sounds, or the middle of the third tetrachord, according to these two cases of disjunction, a name was given to each of these two sounds which determined its position.

But as the fundamental sound varied according to the mode, there followed from thence for the place which each mode occupied in the whole system, a difference from flat to sharp, which multiplied several sounds; for if the different modes had several common sounds, they had also some peculiar to each, or to a few only. So, in the single diatonic genus, the extent of all the sounds, admitted in the 15 modes, numbered by Alipius, is of three octaves; and, as the difference of the fundamental sound of each mode, to that of its neighbour was only of a semi-tone, it is evident

dent that all this space graduated from semi-tone to semi-tone, produced, in the general diagram, the quantity of 34 sounds practised in the ancient music. If, deducing all the repliques of the same sounds, we confine ourselves within the bounds of an octave, we shall find it divided chromatically into 12 different sounds, as in the modern music; which is manifested by the inspection of the tables placed by Meibomius at the head of the work of Alipius.

These remarks are necessary for eradicating the error of those, who believe in the faith of some moderns, that ancient music was composed in the whole of 16 sounds.

In regard to the enharmonic genera and chromatic, the tetrachords were therein found very well divided according to other proportions, but as they always contained equally 4 sounds, and 3 consecutive intervals, in the same manner as the diatonic genus, each of these sounds bore the same name in their genus, which corresponded to them in the other; for which reason I have given no particular tables for each of these genera.

The curious may consult those which Meibomius has placed at the head of the work of Aristoxenes. We shall find 6, one for the enharmonic genus, 3 for the chromatic, and 2 for the diatonic, according to the dispositions of each of these genera, in the Aristoxenian System.

Such was, in its perfection, the general system of the Greeks, which remained nearly in this condition to the 11th century; the time, when Gui d' Arezzo made a considerable change. He added below a new chord which he called Hypoproflambanomenos, or sub-added, and above, a 5th tetrachord, which he called the tetrachord of the fur-sharp.

Besides that, he invented, they say, the b flat necessary for distinguishing the second chord of a tetrachord conjoint with the first chord of the same disjoint tetrachord; that is to say, that he fixed that double signification of the letter B, which St. Gregory, before him, had already assigned to the note si. For since it is certain that the Greeks had, for a long time these same conjunctions and disjunctions of tetrachords, and consequently, signs to express each degree in these two different cases, it follows thence that it was not a new sound introduced in the system of Guy, but only a new name, which he gave to this sound, reducing by this means to one same degree, what amongst the Greeks formed two.

We must also say of these hexachords substituted in the place of their tetrachords, that it was less a change to the system, than to the method, and that all which resulted from it, was another method of sol-faing the same sounds. (Vide Gamut, To Sol-fa.)

We easily conceive that the invention of the counter-point, to whatever author it is due, must very soon draw back the bounds of  
this

this system. Four parts ought to have more extent than one alone. The system was fixed to four octaves, and this is the extent of the keys in all the ancient organs. But at last they found themselves incommoded by limits, whatever space they might contain, they went beyond them; they extended above and below; they formed keys a ravalement; they forced the voice; and at last gave so much extent to this system, that it has no greater bounds than those of the violin.

As we cannot even loosen to descend, the lowest chord of the ordinary basset does not pass the C sol ut, but we shall equally find the method of obtaining on that side the tone of the general system; that is even what they have begun to do, and I look on it as a certain thing, that in France the tone of the opera is lower at present than at the time of Lully. On the contrary, that of the instrumental music is ascended as in Italy, and these differences become sufficiently sensible to be perceived in practice.

In Plate II. Fig. I. Is given a table, of the entire set of keys a ravalement, and of all the sounds contained therein in the extent of five octaves.

**SYSTEM.** Is also, either a method of calculation to determine the relations of sounds admitted in music, or an order of signs established to express them. It is in the first sense that the ancients distinguished the Pythagorean system, and the Aristoxenian. (Vide those Words.)

It is in the second that we at present distinguish the system of Gui, that of Sauveur, of Demos, and Souhaiti, &c. of which I have spoken at the word note.

We must take notice that some one of these systems bear this name in either acceptation, as that of M. Sauveur, which gives at the same time, rules for determining the relations of sounds and notes to express them; as may be seen in the Memoirs of that author, expanded in those of the Academy of Sciences. (Vide Merides, Eptamerides, Decamerides.)

Such is also another system still newer, which being in manuscript, and perhaps never intended to be seen entirely by the Public, is deserving to have an extract here, which has been communicated to us by the author Mons. Roualle de Boisgelou, counsellor to the grand conseil, already mentioned in some articles of this Dictionary.

The first thing necessary, is to determine the exact relation of the sounds in the diatonic and chromatic genera, which being done in an uniform manner for the tones, consequently disperses the modification.

The whole system of Mons. de Boisgelou is summarily confined in the four formulæ which I am going to transcribe, after having put the reader in mind of the rules established in different parts of  
this

this Dictionary on the method of comparing and composing the intervals, or relations which express them. We must then remember, I. That to add one interval to another, we must compose its

references fi, for instance, adding the 5th  $\frac{2}{3}$  to the 4th  $\frac{3}{4}$ , we

have  $\frac{6}{12}$  or  $\frac{1}{2}$ : that is, the octave

II. To add an interval to itself, we must only double its connection, so to add a 5th to another 5th, we must only raise the

reference of the 5th to its second power  $\frac{2}{2} = \frac{4}{2}$ .

III. To connect or simplify a redoubled interval, such as this  $\frac{4}{9}$ , it is sufficient to add the small number to itself, one time or more: that is, to lower the octaves until the two terms, being as nearly connected as possible, give a simple interval. So from  $\frac{4}{9}$ ,

we have as a product of the redoubled 5th, the reference of the major tone, I will add, that in this dictionary, I have always expressed the connections of the intervals by those of the vibrations, whereas Mons. de Boisgelou expresses them by the lengths of the chords, which renders its expressions inverse to mine. So, the

reference of the 5th by the vibrations, being  $\frac{2}{3}$ , is  $\frac{3}{2}$  by the lengths of the chords. But we shall now see that this connection is approached only in the system of Mons. de Boisgelou.

There are however the four formulæ of this author with their explanation.

#### Formulæ

$$\left\{ \begin{array}{l} \text{A.} \quad 12 f \text{ ——— } 7 r + t \text{ ——— } 0 \\ \text{B.} \quad 12 x \text{ ——— } 5 t + r \text{ ——— } 0. \end{array} \right.$$

$$\left\{ \begin{array}{l} \text{C.} \quad 7 f \text{ ——— } 4 r + x \text{ ——— } 0. \\ \text{D.} \quad 7 x \text{ ——— } 4 t + f \text{ ——— } 0. \end{array} \right.$$

R r r

The

## The Explanation.

Connection of the octave ——— 2 — 1.  
 Connection of the 5th ——— n — 1.  
 Connection of the 4th ——— 2 — n.

Connection of the interval which comes from the 5th  $\overset{r}{n} \overset{s}{2}$ .  
 Connection of the interval which comes from the 4th  $\overset{s}{2} \overset{r}{n}$ .

- r. The number of 5ths or 4ths of the interval.
- f. The number of the combined octaves of the interval.
- t. The number of semi-tones in the interval.
- x. The diatonic gradation of the interval. That is the number of major and minor diatonic seconds of the interval.
- $x + 1$ . Gradations of the terms from whence the interval  
 ——— takes its name.

The first case of each formulæ is placed when the interval comes from 5ths. The second case of each formulæ is placed, when the interval is derived from 4ths.

To render this clearer by examples, let us begin by giving names to each of the 12 touches of the keys.

These names, in the arrangement of the keys proposed by Monf. de Boisgelou, are the following :

de	ma	fa .	fol	la	fi	
Ut	re	mi	fi	be	la	ut

Every interval is formed by the progression of 5ths or 4ths, conveyed to the octave. For instance, the interval fi ut is formed by this progression of 5 fourths, fi mi la re sol ut, or by this progression of 7 fifths, fi fi de be ma fa fa ut.

In the same manner the interval fa la is formed by this progression of 4 fifths, fa ut sol re la, or by this progression of 8 fourths, fa fa ma be de fi fi ma la.

Since that the connection of every interval which is derived from 5ths, is  $\overset{r}{n} \overset{s}{2}$ , and that which comes from 4ths, is  $\overset{s}{2} \overset{r}{n}$ . it follows



follows from thence that we have for the connection of the interval fi ut, when it comes from 4ths, this proportion  $2^s - n^r - 2^3 - n^s$ . This is the method of proving the analogy.

The number of 4ths from whence this interval fi ut is derived, being 5, the connection of that interval is of  $2^5 - n^5$ , since the connection of the 4th is  $2 : n$ .

But this connection  $2^5 - n^5$ , would design an interval of  $2^5$  semi-tones, since each 4th has five semi-tones, and that interval has 5 fourths. So, the octave having only 12 semi-tones, the interval fi ut would pass two octaves.

Then that the interval fi ut may be less than the octave, we must diminish this reference  $2^5 : n^5$  of two octaves; that is, of the connection of  $2^2 : 1$ . Which is done by a connection composed of the direct reference  $2^5 - n^5$ , and of the reference  $1 - 2^2$  inverse of that  $2^2 - 1$ , in this manner:  $2^5 + 1. n + 2 :: 2. 2^5 n :: 2 : n$ . The interval fi ut, moreover coming from fourths, its connection, as I have said before, is  $2^s : n^r$ . Then  $2^s : n^r :: 2^3 : n^5$  and again  $s == 3$  and  $r == 5$ .

So, reducing the letters of the second case of each formulæ to the correspondent formulæ, we have for C  $7s - 4r - x = 21 - 20 - 1 = 0$ , and for D  $7x - 4t - s = 7 - 4 - 3 = 0$ .

When the same interval fi ut, comes from 5ths, it gives this proportion  $n^r : 2^s :: n^7 : 2^4$ . So, we have  $r = 7$ ,  $s = 4$ , and consequently, for the A of the first formulæ  $12 - 7r - t = 48 - 49 + 1 = 0$ . And for B.  $12x - 56 + r = 12 - 56 + 7 = 0$ .

In the same manner the interval fa la coming from 5th, gives this proportion  $n^r : 2^s :: n^4 : 2^2$ , and consequently we have  $r = 4$  and  $s = 2$ . The same interval coming from 4ths, gives this proportion,  $2^s : n^r :: 2^5 : n^8$ .

It would be too tedious to explain here the method of finding the connections, and the whole which concerns the intervals by the method of formulæ. It will be placing an attentive reader on the ramble, to give him the computation of  $n$  and of its powers.

Computation of the Powers of  $n$ .

$n^4 = 5$  is an experienced truth.

Wherefore,  $n^8 = 25$   $n^{12} = 125$ , &c.

The precise Computations of the three first Powers of  $n$ .

$$n^4 = \sqrt[4]{5}, n^2 = \sqrt[2]{5}, n^3 = \sqrt[3]{125}.$$

The nearer Computations of the three first Powers of  $n$ .

$$m = \frac{3}{2}, m^2 = \frac{3^2}{2^2}, m^3 = \frac{3^3}{2^3}.$$

The connection  $\frac{3}{2}$  then, which till now has been thought to have been that of the true 5th, is only a relation of approximation, and gives too strong a 5th; and from thence the real principle of the modification; which is called so only through abuse, since the 5th must be weak to be true.

## Remarks on the Intervals.

An interval of a given number of semi-tones, has always two different connections; the one as coming from 5ths, and the other as coming from 4ths. The sum of these two powers of  $r$  in these two connections equal 12, and that of the two powers of  $s$  equals 7.

That of the two connections of 5ths or 4ths, in which  $r$  is smaller, is the diatonic interval; the other is the chromatic. So the interval  $fi$   $ut$ , which has these two connections  $2 : n$  and  $n : 2$ , is a diatonic interval, as coming from 4ths, and its connection is  $2 : n$ ; but this same interval  $fi$   $ut$ , is chromatic as coming from 5ths, and its connection is  $n : 2$ , because in the first case  $r + 5$  is less than  $r = 7$  of the second.

On the contrary, the interval  $fa$   $la$ , which has its two connections  $n : 2$  and  $2 : n$ ; is diatonic in the first case, where it comes from 5ths, and chromatic in the second, where it comes from 4ths. The interval  $fi$   $ut$  diatonic, is a second minor: The interval  $fi$   $ut$ , chromatic, or rather the interval  $fi$   $fi$  diesis (for then  $ut$  is taken as  $fi$  diesis) is a superfluous unison.

The interval  $fa$   $la$  diatonic, is a major third: The interval  $fa$   $la$  chromatic, or rather the interval  $mi$  diesis  $la$  (for then  $fa$  is taken as  $mi$  diesis) is a diminished fourth: So with the rest.

It is evident, I. That to each diatonic interval there corresponds a chromatic of the same number of semi-tones, and vice versa. These

These two intervals of the same number of semi-tones, the one diatonic and the other chromatic, are called correspondent intervals.

Secondly. When the power of  $r$  is equal to one of these numbers 0, 1, 2, 3, 4, 5, 6, the interval is diatonic, whether that this interval comes from 5ths or 4ths; but if the  $R$  is equal to one of these numbers 7, 8, 9, 10, 11, 12, the interval is chromatic.

Thirdly. When  $r = 6$  the interval is in the same time diatonic and chromatic, whether it comes from 5ths or 4ths, such are the two intervals  $fa\ si$ , called triton, and  $si\ fa$ , called false fifths.

The triton  $fa\ si$  is in the reference  $n : 2$ ,<sup>6 3</sup> and comes from 6 fifths: the false 5th  $si\ fa$  is in the connection  $2 : n$ ,<sup>4 6</sup> and comes from 6 fourths: where we see, that in the two cases we have  $r = 6$ . So the triton, as a diatonic interval, is a major 4th and as a chromatic interval, as superfluous 4th. The false 5th  $si\ fa$ , as a diatonic interval, is a minor 5th; as a chromatic interval, a diminished 5th. There are but these two intervals and their repliques which are able to be at the same time diatonic and chromatic.

The diatonic intervals of the same name, and consequently of the same gradation, are divided into major and minor. The chromatic intervals are divided into diminished and superfluous. To each diatonic interval minor, there corresponds a chromatic superfluous interval; and to each diatonic major interval, there corresponds a chromatic diminished interval.

Every interval in ascending which comes from 5ths is major or diminished, according as that interval is diatonic or chromatic; and reciprocally every major or diminished interval comes from fifths.

Every interval in ascending which comes from 4ths, is minor or superfluous, according as that interval is diatonic or chromatic, and vice versa, every minor or superfluous interval comes from fourths.

It would be the contrary if the interval was taken in descending.

Of two intervals, correspondent, that is, the one diatonic and the other chromatic, and which consequently come, the one from 5ths, and the other from 4ths, the greater is that which comes from 4ths; and it surpasses that which comes from 5ths in regard to the gradation, by an unity, and, in regard to the intonation, by an interval,

whose connection is  $2 : n$ :<sup>7 12</sup> that is, 128. 125. This interval is the diminished second called commonly grand comma, or quarter of the tone; and here is a door opened to the enharmonic genus.

To proceed in placing the reader in a right view for the formulæ, peculiar to the improvement of the theory of music, I have here given

given the two tables of progression performed by Mons. de Boifgelou, by which we see with a cast of the eye the connections of each interval, and the powers of the terms of those connections, according to the number of 4ths or 5ths which compose it.

Progression by 5ths beginning by fa.

ut	de	re	ma	mi	fa	fi	fol	be	la	fa	fi	ut
2	2 <sup>5</sup>	2 <sup>2</sup>	2 <sup>6</sup>	2 <sup>3</sup>	1	2 <sup>4</sup>	2	2 <sup>5</sup>	2 <sup>2</sup>	2 <sup>6</sup>	2 <sup>3</sup>	1
n	8	3	10	5		7	2	9	4	11	6	12
n	n	n	n	n		n	n	n	n	n	n	

Progression by 4ths beginning by fi.

ut	de	re	ma	mi	fa	fi	fol	be	la	fa	fi	ut
5	10	3	8		6	11	4	9	2	7	1	5
n	n	n	n	n	n	n	n	n	n	n	n	n
2	5		4		3	6	2	5		4		3
2	2	2	2		2	2	2	2	2	2		2

We see, in these formulæ, that the semi-tones are really the primitive and elementary intervals which compose all the rest; which has engaged the author to make for this same system, a considerable change in the characters, by chromatically dividing the stave, by intervals, or equal degrees, and all of a semi-tone; whereas in the ordinary music, each of these degrees is sometimes a comma, sometimes a semi-tone, sometimes a tone, and sometimes a tone and a half; which leaves to the eye the equivocation, and to the mind, the doubt of the interval, since the degrees being the same, the intervals are sometimes the same, and sometimes different.

For this reformation it is sufficient to make the stave of 10 lines instead of 5, and to assign to each position one of the 12 notes of the chromatic keys before mentioned, according to the order of these notes, which always remaining the same, determine their intervals with the nicest precision, and render all the diesis's B's flat, or B's sharp absolutely useless, in whatever tone we may be, and as well in the cleff as accidentally. I have here given the chromatic scale without either diesis or b flat.



and also the diatonic scale.



However little we practice on this new method of pricking and reading the music, we shall be surprized at the neatness, and simplicity which it gives the notes, and the simplicity it conveys in the execution; without its being possible to see any other inconvenience in it, than that it fills a little more space on the paper, and perhaps may dazzle the eye, in the quicker parts, by the multitude of its lines, and particularly in the symphony.

But as this system of notes is absolutely chromatic, it seems to me to be inconvenient to suffer the denominations of the diatonic degrees to be substituted in the place of it, and that according to Mons. Boissgelou, ut re ought not to be a second, but a third; neither ut mi a third but a fifth; nor ut ut an octave, but a twelfth; since each semi-tone really forming a degree on the note, should also take its denomination; then  $x + 1$  being always equal to  $t$  in the formulæ of that author, these formulæ would be found extremely simplified. This system besides, appears to me equally profound and advantageous. It would be a desirable thing for it to be explained, and published by the author, or some ingenious theorician.

**SYSTEM.** Lastly is the collection of rules in harmony, drawn from some common principles which gather them together, which form their union, from which they flow, and by which we form a computation of them.

Until our age, the harmony, born successively, and, as it were by chance, had only scattered rules, established by the ear, confirmed by custom, and which appeared absolutely arbitrary. Mons. Rameau is the first, who, by the system of the fundamental bass, has given the principles of these rules. The system on which this dictionary has been composed, being sufficiently explained in the principal articles, shall not be treated of in this, which is already too long, and which these superfluous repetitions would extend to an excess. Besides, the plan of this work does not oblige me to expose all the systems, but only to give a true explanation what a system is, and to strengthen, when necessary, that explanation by examples. Those who would wish to see the diffused obscure system of Mons. Rameau by his writings, lain out with a clearness of which it could not have been thought susceptible, may have recourse to the elements of music by Mons. D'Alambert.

Mon.

Monf. Serre, of Geneva, having found Monf. Rameau's Principles insufficient in many respects, planned another system on his, in which he pretends to shew, that the whole of harmony is borne on a double fundamental bass : and as this author, having travelled in Italy, was not ignorant of Monf. Tartini's experiments, he composed from them, joining them with those of Rameau, a mixed system which was printed at Paris in 1753, under this Title "Essay on the Principles of Harmony." The facility that each one has of consulting this work, and the advantage to be found by reading the whole of it, dispense with my giving any account of it to the public. It is different with that of the illustrious Monf. Tartini, which remains to be spoken of ; the which as it is written in a foreign language often profound, and always diffused, cannot be consulted but by few people, the greatest part of which are discouraged by the obscurity of the book, before they have entered upon its beauties. I shall, as briefly as possible, make an extract of this new system, which, if it is not that of nature, is at least, amongst all that have been yet published, that, whose principle is the most simple, and from which the whole laws of harmony seem to arise least arbitrarily.

#### System of Monf. Tartini.

There are three methods of calculating the connections of sounds.

I. In cutting on the monochord, the entire chord into its parts by moveable bridges, the vibrations or sounds will be in the inverse proportion of the lengths of the chord and its parts.

II. In extending equal chords, by unequal weights, the sound will be as the square roots of the weights.

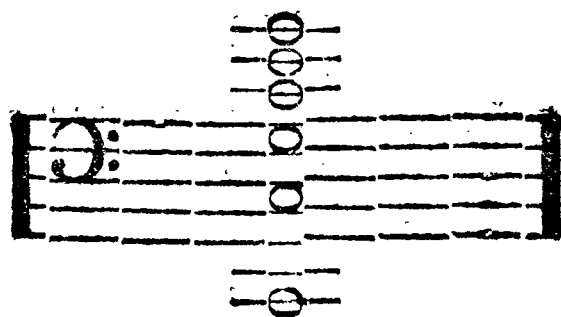
III. In extending by equal weights, chords, equal in thickness and unequal in length, or equal in length and unequal in thickness, the sound will be in the inverse proportion of the square roots of the dimension, wherein the difference is found.

In general, the sounds are always together in the inverse proportion of the cubic roots of sonorous bodies. The sounds of the chords are moreover changed three ways, viz. in altering either the thickness, that is the diameter of the thickness, or the length, or tension. If all this is equal, the chords are in unison. If only one of these is changed, the sounds follow, in inverse proportion, the connections of the alterations. If two or all the three are changed, the sounds are, in inverse proportion, as the roots of the composed connections of the alterations. Such are the principles of all the phænomena, which we observe in comparing the connections of the sounds, and those of the dimensions of the sonorous bodies.

This



This being understood, having placed every thing necessary, touch on the organ the key which renders the lowest note as follows :



All the other notes marked above, will resound at the same time, and still you will hear only the flattest sound.

The sounds of this series being confounded in the flat sound, will form in their connections, the natural consequence of the fractions

$\frac{1}{1} \frac{1}{2} \frac{1}{3} \frac{1}{4} \frac{1}{5} \frac{1}{6}$ , which consequence is an harmonic progression.

1 2 3 4 5 6

This same series will be that of equal chords, hung by weight, which would be as the squares  $\frac{1}{1} \frac{1}{4} \frac{1}{9} \frac{1}{16} \frac{1}{25} \frac{1}{36}$ , &c. of the above said fractions.

And the sounds which these chords would render, are the same, expressed in notes in the example.

By this means, all the sounds which are in harmonic progression after the unity, are reunited to form one only sensible to the ear, and the whole harmonic system is found in the unity.

There is no sound, which makes any resonance but from its aliquots, because in every other fraction, as this would be  $\frac{3}{5}$ , it is

found after the division of the chord in equal parts ; a remainder, whose vibrations strike against each other, stops the vibrations of the equal parts, and are equally prevented by them ; so that of the two sounds which would result from it, the weakest is destroyed by the shock of the rest.

Moreover, its aliquots being all comprised in the series of the fractions  $\frac{1}{1} \frac{1}{2} \frac{1}{3} \frac{1}{4}$ , &c. before given, each of these aliquots is

1 2 3 4

what Mons. Tartini calls unity or harmonic monad, from the concurrence, whence a sound results. So, the whole of harmony being necessarily comprised betwixt the monad or composing unity, and the full sound or composed unity, it follow that harmony has,

S i f

on

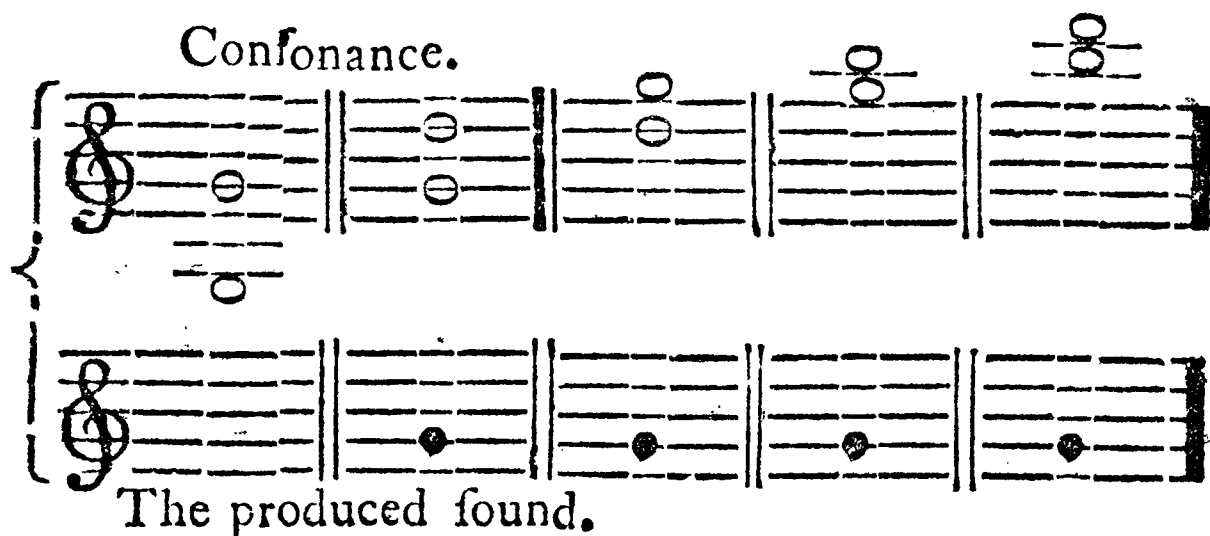
on both sides, the unity for its term, and consists in that unity essentially.

The following experiment, which serves as the principle of all artificial harmony, places this truth even in a clearer light.

Every time that two strong times, true and sustained, are heard at the same moment, there results from their shock a third sound, more or less sensible, in proportion to the simplicity in the connection of the two first, and the nicety of the ear in the audience.

To render this experiment as sensible as possible, we should put two hautboys of a good concord, at some paces of interval, and place ourselves between them, at an equal distance from each. If we should be in want of hautboys, we may take two violins, which, tho' the sound should be weaker, may, by being touched with force and justness, be sufficient to make a third sound be distinguished.

The production of this third sound, by each of our consonances is as follows :



And we may continue it below the consonances, by all the intervals represented by the aliquots of unity.

The octave gives none, and that is the only interval excepted.

The 5th gives the unison of the flat sound, an unison, which, with attention we cannot fail to distinguish.

The third sounds produced by the other intervals, are all in flat.

The 4th gives the octave of the sharp sound.

The major third gives the octave of the flat sound, and the minor sixth, which is varied from it, gives the double octave of the sharp sound.

The minor third gives the major tenth of the flat sound ; but the sixth major, which is varied from it, gives only the major tenth of the sharp sound.

The major tone gives the 15th, or double octave of the flat sound.

The minor tone gives the 17th, or double octave in the major third of the sharp sound.

The semi tone major gives the 22d, or triple octave of the sharp sound.

Lastly, the semi-tone minor, gives the 26th of the flat sound.

We

We see, by comparing the four last intervals, that a change hardly perceptible in the interval, changes very sensibly the produced or fundamental sound. So, in the major-tone, confine the interval by lowering the superior sound, or elevating the inferior only

80 —, immediately the produced sound will ascend a tone.

81

Form the same operation on the major semi-tone, and the produced sound will descend a 5th.

Tho' the production of the third sound is not confined to these intervals, our notes not being able to express any more composed, it is useless for the present to go below those.

We see in the regular movement of the consonances which compose this table, that they are all connected with one common bass, and all produce exactly the same third sound.

Here then, by this new phenomenon, is a physical demonstration of the unity in the principle of harmony.

In the Physico Mathematic Sciences, such as music, the demonstrations should be very geometrical, but physically deduced from the thing demonstrated. 'Tis then alone that the union of calculation to physic, furnishes, in established truths, both on experience and geometrically demonstrated, the true principles of this art. Otherwise geometry alone will give certain theorems, but without use in practice : Physic will give particular facts, but without union together, and any general law.

The physical principle of harmony is one, as we have seen, and is resolved in an harmonic proportion. Moreover, these two proprieties are fuitable to the circle ; for we shall soon perceive, that the two extreme unities of the monad and sounds are found therein ; and in regard to the harmonic proportion, it is found also, since in whatever point C, we unequally cut the diameter A B, for which see Fig. II. Plate II.

The square of the ordinated C D, will be a proportionate harmonic means between the two rectangles of the parts A C, and C B, of the diameter by the ray ; a propriety which is sufficient to establish the harmonic nature of the circle. For, tho' the ordinated parts are geometrical means between the parts of the diameter, the square of these ordinated parts being harmonic means between the rectangles, their connections representing so much the more exactly those of the sonorous bodies, than the connections of these chords, where the hanging weights are also as the squares, whilst the sounds remain as the roots.

From the diameter A B, divided according to the series of the

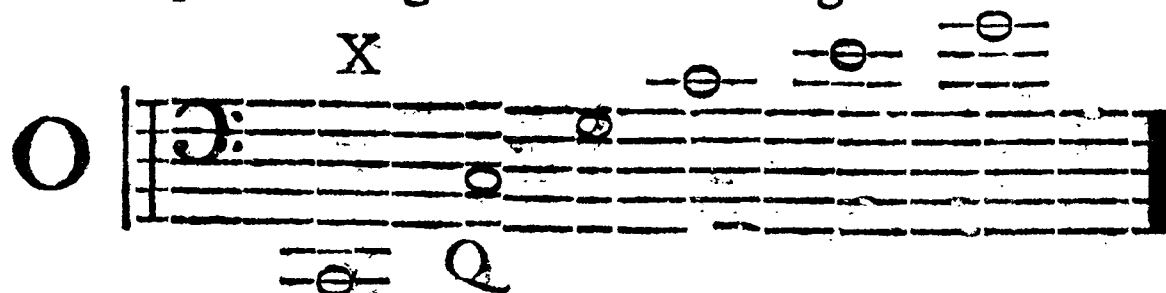
fractions  $\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5} \quad \frac{1}{6}$ , which are in harmonic progression, let

S f f 2

there

there be drawn the ordinated C, C C; G, G G; c, c c; e, e e; and g, g g; See Fig. III. Plate II.

The diameter represents a sonorous chord, which divided into the same computations gives the following sounds.



To avoid the fractions, let us give 60 parts to the diameter, the sections will contain these entire numbers,  $B C = \frac{1}{2} = 30$ ;  $B G,$

$$= \frac{1}{3} = 20; B c = \frac{1}{4} = 15; B e = \frac{1}{5} = 12; B g = \frac{1}{6} = 10.$$

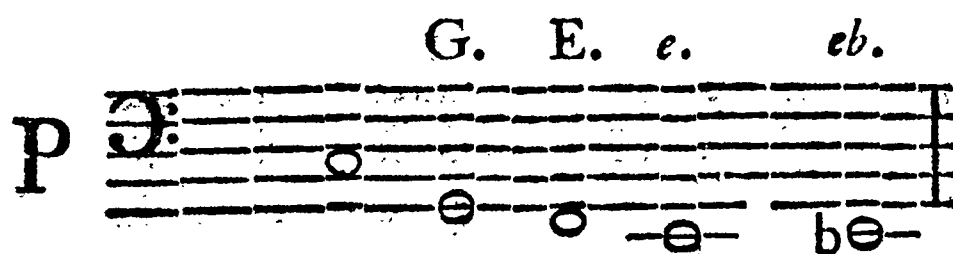
From the points where the ordinated parts cut the circle, let us draw on each side chords to the two extremities of the diameter; the sum of the square of each chord, and of the square of the correspondant chord, which I call its complement, will always be equal to the square of the diameter. The squares of the chords will be always together as the correspondent abscisses, consequently also in harmonic proportion, and in the same manner will represent the above example, allowing the exception of the first sound.

The squares of the complements of these same chords will be together as the complements of the abscisses in the diameter, consequently in the following proportions.

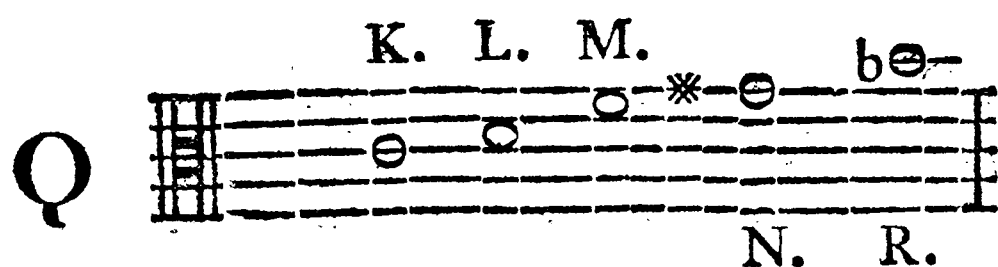
$$\begin{aligned} \frac{1}{2}^2 & \quad 1 \\ A C & = \frac{1}{2} = 30. \\ \frac{2}{2}^2 & \quad 2 \\ A G & = \frac{2}{2} = 40. \\ \frac{3}{2}^2 & \quad 3 \\ A c & = \frac{3}{2} = 45 \\ \frac{4}{2}^2 & \quad 4 \\ A e & = \frac{4}{2} = 48 \\ \frac{5}{2}^2 & \quad 5 \\ A g & = \frac{5}{2} = 50. \end{aligned}$$

and

and will represent the founds of the following example,



on which we ought to take notice, in passing, that this example, compared to the following,



and to the first, gives the natural foundation of the rule of contrary movements.

The squares of the ordinated parts will be in the following proportions to the square 3600 of the diameter :

$$\begin{aligned} \frac{A}{B} &= \frac{1}{3600} \\ \frac{C}{C} &= \frac{1}{900} \\ \frac{G}{G} &= \frac{2}{800} \\ \frac{c}{c} &= \frac{3}{675} \\ \frac{e}{e} &= \frac{4}{576} \\ \frac{g}{g} &= \frac{5}{500} \end{aligned}$$

and will represent the founds in the above example.

Moreover, this last series which has nothing homologous in the divisions of the diameter, and without which, we cannot however compleat the harmonic system, shews the necessity of seeking in the proprieties of the circle, for the true foundations of the system, which cannot be found either in the straight line, or in the abstracted numbers.

I designedly pass all the other propositions of Mons. Tartini, on the nature of Arithmetic, of the harmony and geometry of the circle, as well as on the bounds of the harmonic series given by the sextuple computation ; because its proofs, expressed only in cyphers, establish no general demonstration ; and, what is more, by often comparing heterogeneous magnitudes, he finds proportions where we cannot even see connections. So, he would prove that the square of a line is a proportional means of such a computation, he makes no other proof, but that such a number is a proportional means between two such other numbers. For the surfaces and abstracted numbers not being of the same nature, cannot be compared.

Mons. Tartini perceives this difficulty, and endeavors to prevent it ; we may see his reasonings in his book.

This theory being established, we must now deduce its given proofs and the rules of the harmonic art.

The octave, which engenders no fundamental sound, not being essential to harmony, may be removed from the constitutive parts of the concord. So, the concord, reduced to its greatest simplicity, should be considered without it. It is then composed of these three

terms,  $1 \frac{1}{3} \frac{1}{5}$ , which are in harmonic proportion, and where the

two monades  $\frac{1}{3} \frac{1}{5}$  are the only true elements of sonorous unity ;

for the fraction  $\frac{1}{4}$  is the element  $\frac{1}{2}$ , and the fraction  $\frac{1}{6}$  is octave

of the monade  $\frac{1}{3}$ .

This perfect concord  $\frac{1}{3} \frac{1}{5}$  produced by a single chord, and whose terms are in harmonic proportion, is the general law of nature, which serves as a basis to all the sciences of sounds ; a law, which physic may endeavour to explain, but whose explanation is useless to the rules of harmony.

The calculations of the chords, and pendant weights, serve to give in numbers the connections of the sounds which cannot be considered as quantities but by favor of these calculations.

The third sound, engendered by the concurrence of two others, is as the product of their quantities ; and when in a common category this third sound is always found the same, tho' engendered by different intervals, it is, that the products of the generations are equal together.

This



This is manifestly deduced from the precedent propositions.

What, for instance is the third sound which results from C B and G B? It is the unison of C B. Why so? Because in the two harmonic proportions, whose squares of the two ordinated parts C, C C, and G, G G, are proportional means, the sums of the extremes are equal together, and consequently produce the same common sound C B or C, C C.

In effect, the sum of the two rectangles B C, by C, C C, and of A C, by C, C C is equal to the sum of the two rectangles of B G by C, C C, and of G A by C, C C: for each of these two sums is equal to twice the square of the ray. From whence it follows, that the sound C, C C, or C B, should be common to the two chords; moreover, this sound is precisely the note of the last plate.

Whatever ordinated parts you may take in the circle, to compare them 2 by 2, or even 3 by 3, they will always engender the same third sound represented in the plate; because the rectangles of the two parts of the diameter by the ray, will always give equal sums.

But the octave X Q engender harmonies only in sharp, and by no means the fundamental sound, because we cannot elevate the ordinated part on the extremity of the diameter, and consequently the diameter and the ray, in their harmonic proportions, have any common product.

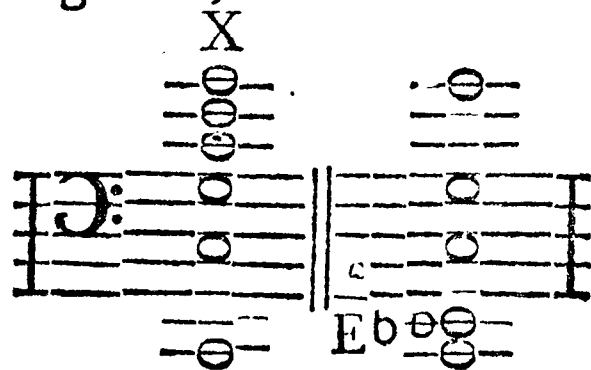
Instead of harmonically dividing the diameter by the fractions

$\frac{1}{2} \quad \frac{1}{3} \quad \frac{1}{4} \quad \frac{1}{5} \quad \frac{1}{6}$ , which give the natural system of the major concord, if we divide it arithmetically into 6 equal parts, we shall have

the system of the major concord varied, and this variation gives exactly the minor concord. See Fig. IV. Plate II.

One of these parts will have the 19th, that is, the double octave of the 5th, two will give the 12th, or the octave of the 5th, three will give the octave, four the 5th, and five the minor 3d.

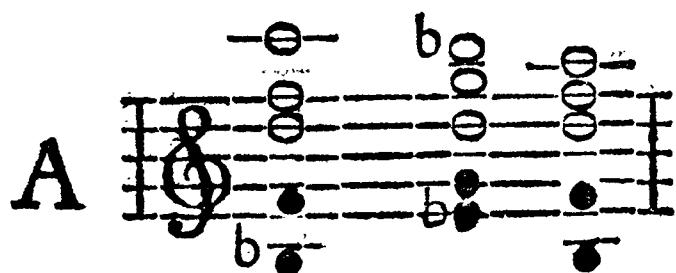
But, as soon as uniting two of these sounds, we seek the third sound, which they engender, these two sounds, instead of the sound C,



will never produce as fundamental, any but the sound E b; which proves, that neither the minor concord, or its mode, are given by nature. If we make two or more intervals of the minor concord sound together, the fundamental sounds will be multiplied, and in relation

relation to these sounds, we shall hear several major concords, at the same time, without any minor concords.

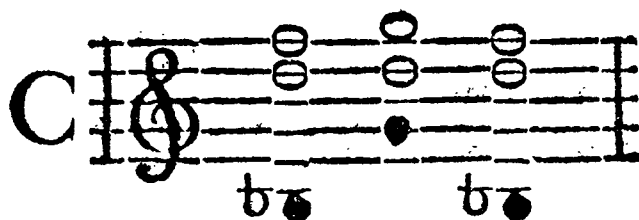
So, by an experiment formed in presence of eight celebrated professors of music, two hautboys and a violin sounding the white notes together marked as follows :



the sounds marked in blank in the same figure, are distinctly heard, viz. Those which are marked aside as follows, for the intervals which are above,



and those marked next, for the intervals below.



In judging of the horrible cacophony, which should result from this concinity, we should conclude that all music in the minor mode would be insupportable to the ear, if the intervals were true enough and the instruments sufficiently strong to render the engendered sounds as sensible as the generators.

I beg leave to remark, *en passant*, that the inverse of two modes marked in a precedent plate, is never bounded to the fundamental concord which constitutes them, but that it may be heard throughout the whole air, and harmony ; which, noted in a direct sense within the major mode, when we reverse the paper, and place clefs at the end of those lines that are become the beginning, presents another *suite* of air and harmony in minor mode, exactly the inverse of the first, wherein the bass becomes the treble, and vice versa. This is the cleff of the method of composing then double canons which I have spoken of at the word canon. Mons. Serre, before mentioned, who has very clearly explained in his book this harmonic curiosity, introduces a symphony of this kind, composed by Mons. de Merambest, who should have had it engraved.

That

That would have been certainly better than having it executed.

A composition of this nature must be better to present to the eye than the ear.

We have seen that from the harmonic division of the diameter, results the major mode, and from the arithmetical division, the minor mode. It is besides a known thing of all the theoreticians, that the connections of the minor concord are found in the arithmetical division of the 5th. To find the first foundation of the minor mode in the harmonic system, it is sufficient to shew in this system the arithmetical division of the 5th.

The whole harmonic system is founded on a double computation, the connection of the entire chord to its octave, or of the diameter to the ray ; and on the sesqui alter computation, which gives the first harmonic or fundamental sound, to which all the rest are connected.

Moreover, if in the double computation, we compare successively the second note G, and the third F of the series P to the fundamental sound Q, and to its flat octave which is the entire chord, we shall find that the first is an harmonic means, and the second an arithmetical means between those two terms.

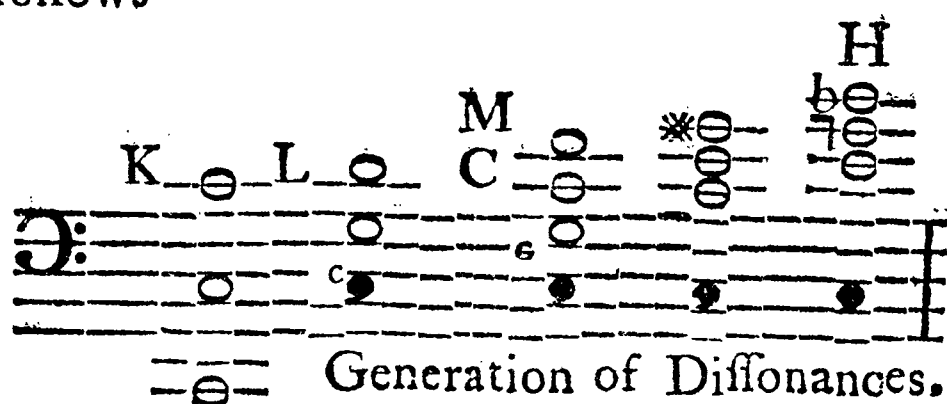
In the same manner, if in the sesqui alter computation we compare successively the 4th note e, and the 5th eb of the same series, to the entire chord, and its 5th G, we shall find that the 4th e is an harmonic means, and the 5th eb an arithmetical means betwixt the two terms of this 5th. The minor mode then being founded on the arithmetical division of the 5th, and the note eb, taken in the series of the complements in the harmonic system, giving this division, the minor mode is founded on that note in the harmonic system.

After having found all the consonances in the harmonic division of the diameter, the major mode in the direct order of these consonances, the minor in their retrograde order, and in their complements, there remains to examine the third example, which expresses in notes the connections of the squares in the ordained parts, and which gives the system of dissonances.

If we join, by consonances, the successive intervals of the above example, we shall find that to square the ordained parts, is to double the interval which they represent. So, adding a third sound, which represents the square, this added sound will always double the interval of the consonance, as we see in the following plate.

Thus the first note K of the above example doubles the octave, the first interval of the other example ; the second note L doubles the fifth, the second interval ; the third note M doubles the fourth

the third interval, &c. and tis this doubling of intervals which is expressed as follows

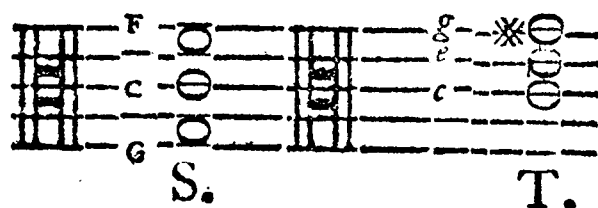


Leaving aside the octave of the first interval, which engendering no fundamental sound, ought not to pass as harmonic, the added note L forms, with the two which are below it, a thorough geometrical proportion in sesquialter computation, and the following, always doubling the intervals, form also always geometrical proportions.

But the proportions and progressions harmonic and arithmetical, which constitute the consonant major and minor system, are opposed, by their nature, to the geometrical progression; since this results essentially from the same connections, and the others from connections always different. Then, if the two proportions harmonic and arithmetical are consonant, the geometrical proportion will be necessarily dissonant; and, consequently, the system which results from the former example, will be the system of dissonances.

But this system drawn from the squares of the ordinated parts is united to the two precedent, drawn from the squares of chords. The dissonant system is then united in the same manner to the universal harmonic system.

It follows from thence, first, That every concord will be dissonant, when it contains two similar intervals, others than the octave; whether these two intervals be found conjoint with, or separated from the concord. Secondly, that of these two intervals, that which belongs to the harmonic or arithmetical system shall be consonant, and the other dissonant. So in the two examples S T of dissonant concords in the following plate, the intervals G C and c e are consonant, and the interval's C F and e g dissonant,



In connecting however each term of the dissonant series to the fundamental sound or engendered C of the harmonic series, we shall find that the dissonances which result from this connection will be  
the

the following, and the only direct ones which can be established on the harmonic system.

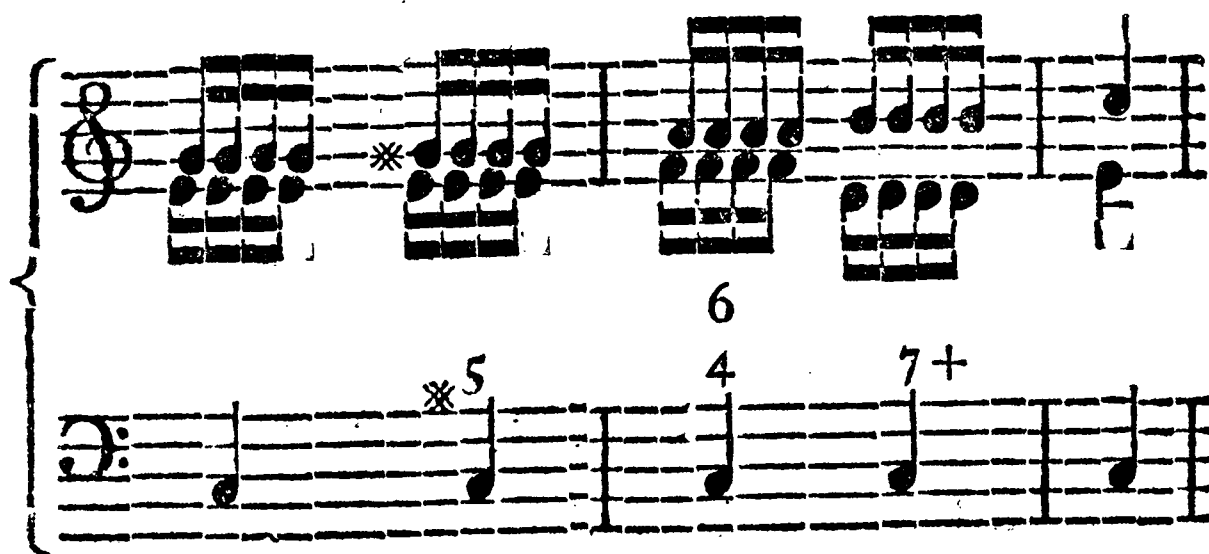
I. The first is the 9th, or double 5th L.

II. The second is the 11th, which must not be confounded with the simple 4th, provided that the first 4th, or simple 4th G C, being in the particular harmonic system, is consonant; which is not the second fourth, or 11th C M, foreign to this same.

III. The third is the 12th or superfluous fifth, which Mons. Tartini calls the concord of a new invention, either because he first discovered its principles, or because the sensible concord in minor mode on the mediant, which we call superfluous 5th, has never been admitted on account of its horrid roughness. Vide the practice of this concord a la Francoise,



and the practice of the same a l' Italienne.



Before we conclude the enumeration we have begun, I should take notice, that the same distinction of the two fourths, consonant and dissonant, which I have made before, should be understood in the same manner of the two major thirds of this concord, and the two minor thirds of the following.

IV. The 4th and last dissonance given by the series, the 14th H that is, the octave of the 7th, a 14th which is reduced to the simple only by licence, and according to the right which we attri-

bute to ourselves in the custom of indifferently confounding the octaves.

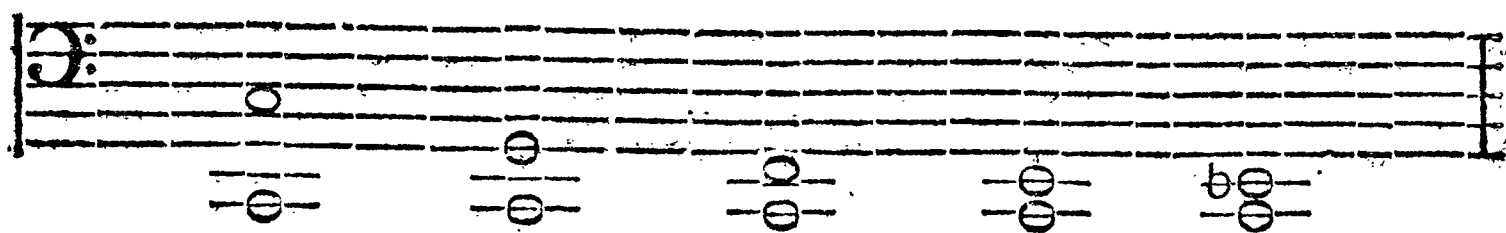
If the dissonant system is deduced from the harmonic system the rules of preparing and saving the dissonances are not less deduced, and we see, in the consonant and harmonic series, the preparations of all the sounds in the arithmetical series. In effect, comparing the three series O P Q, we always find in the successive progression of the sounds of the series O, not only, as we have seen, the simple computations, which, when doubled, give the sounds of the series Q but also the same intervals, which the sounds of the two P and Q form together. So that the series O always prepares beforehand, what the two series P and Q immediately produce.

So, the first interval of the series O, is that of the chord, a vide, to its octave, and the octave is also the interval or concord, which the first sound of the series Q produces, compared to the first sound of the series B.

In the same manner, the second interval of the series O (always reckoning from the entire chord) is a 12th; the interval or concord of the second sound of the series Q compared to the second sound of the series P, is also a 12th.

The third on each side, is a double octave, and so on.

Moreover, if we compare the series P to the entire chord,



We shall find exactly the same intervals which the series O gives beforehand, viz. the octave, 5th, 4th, major 3d, and minor 3d.

From whence it follows, that the particular harmonic series gives precisely, not only the exemplar and model of the two series arithmetical and geometrical, which it engenders, and which with it compleat the universal harmonic system; but also prescribes to one, the order of the sounds, and prepares for the other the use of the dissonances.

This preparation, given by the harmonic series, is exactly the same which is established in practice; for the 9th doubled from the 5th, is also prepared by a movement of the 5th. The 11th doubled from the 4th, is prepared by a movement of the 4th. The 12th, or superfluous 5th, doubled from the major third, is prepared by a movement of major third; lastly the 14th, or false 5th, doubled from the minor third, is also prepared by a movement of the minor third.

It is true that we must not seek these preparations in the movements called fundamental in Monsi. Rameau's system; but which  
are

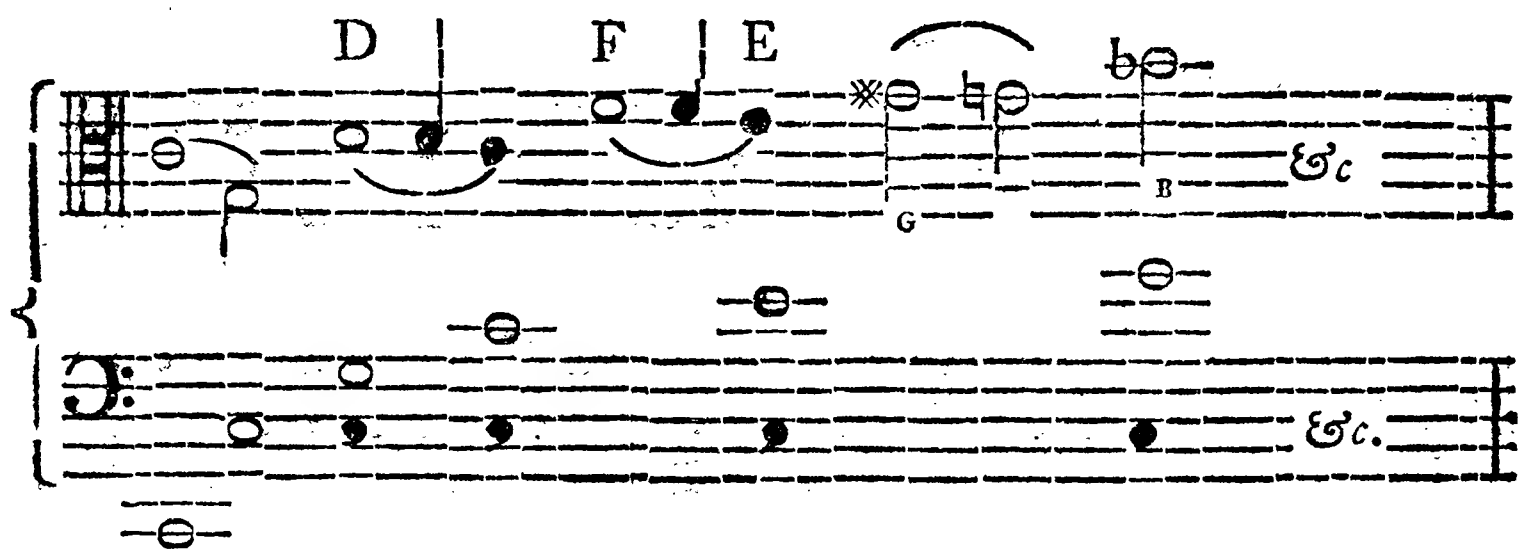


are not so in that of Mons. Tartini; and it is true also that the same dissonances are prepared in several different ways, either by the variations of harmony, or by a substituted bass; but the whole depends on the same principle, and this is not the place to enter into a detail of rules.

That of resolving and saving the dissonances arises from the same principle as their preparation: for as each dissonance is prepared by the antecedent connection of the harmonic system, so it is saved by the consequent connection of the same system,

So, in the harmonic series the connection  $\frac{2}{3}$ , where the progress of 5th being that whose 9th is prepared and doubled, the following connection  $\frac{3}{4}$  or progress of 4th is that whose same 9th ought to be saved. The 9th ought then to descend a degree, to seek in the harmonic series the unison of the second progress, and consequently the octave of the fundamental sound.

#### General System of Dissonances.



By following the same method, we shall find that the 11th F should in the same manner descend a degree on the unison E of the harmonic series, according to the correspondant reference  $\frac{4}{5}$ , that the 12th or superfluous 5th G diesis, ought to redescend on the same G natural, according to the reference  $\frac{5}{6}$ ; and we see the reason, till now unknown, why the bass ought to ascend to prepare the dissonances, and the treble descend to save them. We may also take notice that the 7th, which, in Mons. Rameau's system is the first and almost the only dissonance, is placed the last in that of

of Mons. Tartini; so much it was decreed these authors should be contradictory in every circumstance.

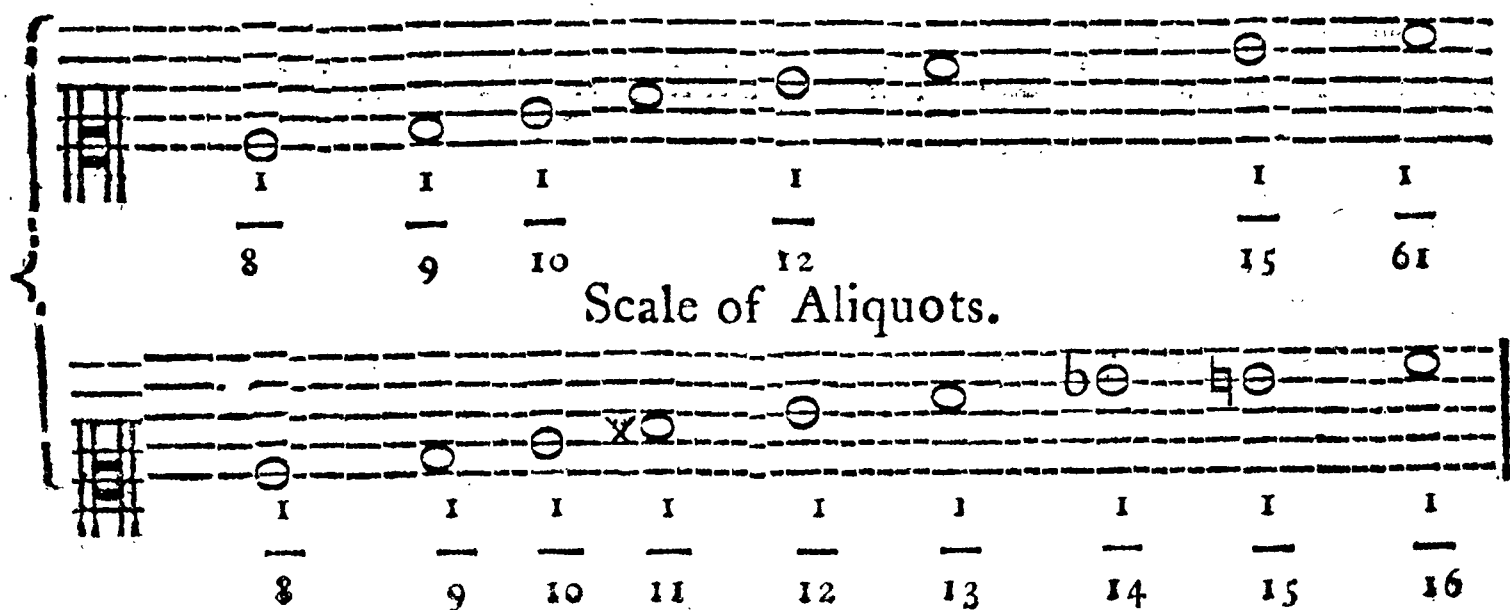
If we have clearly understood the generations and analogies of the three orders or systems, all founded on the first, given by nature, and all represented by the parts of the circle or their powers, we shall find first, That the particular harmonic system, which gives the major mode, is produced by the sextuple division in harmonic progression of the diameter, or the entire chord, considered as the unity. Secondly, that the arithmetical system, from whence the minor mode results, is produced by the arithmetical series of the complements; taking the smaller term for the unity, and raising it from term to term as far as the sextuple computation, which at last gives the diameter, or the entire chord. Thirdly, that the geometrical system, or the dissonant is also drawn from the harmonic system, by doubling the powers of each interval; from whence it follows, that the harmonic system of the major mode, the only one immediately given by nature, serves as a principle and foundation to the rest.

By what has been yet said, we see that the harmonic system is not composed of parts which reunite to form the whole, but on the contrary, it is from the division of the whole, or the integral unity, that the parts are drawn; that the concord forms to itself no sounds, but that it gives them; and that lastly, wheresoever the harmonic system has a place, the harmony does not derive from the melody, but the melody from the harmony.

The elements of the diatonic melody are contained in the successive degrees of the scale or octave of the major mode, beginning by C, from which is derived also the scale of the minor mode, beginning by A.

This scale not being exactly in the order of the aliquots is no more than that which the natural divisions of horns, trumpets, and other similar instruments produce, as may be seen in the plate by the comparison of these two scales, a comparison, which shews at the same time the cause of the false tones given by these instruments.

#### Diatonic Scale.



However, the common scale, tho' not in concord with the series of the aliquots, has not a less physical and natural origin to be explained.

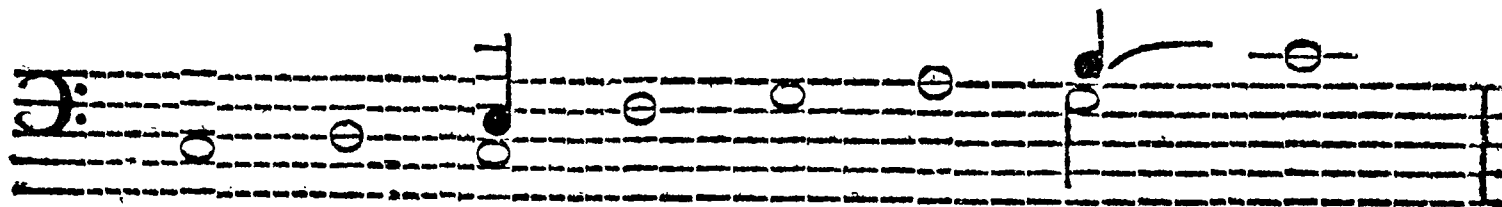
The portion of the first series O, which determines the harmonic system, is the sesquialter or 5th C G; that is, the octave harmonically divided.

Besides, the two terms, which correspond to those in the series P of the complements, are the notes G F. These two chords are the middle; the one harmonic the other artificial, betwixt the entire chord and its half, or between the diameter and the ray; and these two middle G and F being connected both to the same fundamental, determine the tone and even the mode, since the harmonic proportion predominates over it; and they appear before the generation of the minor mode, having no other law than that which is determined by the harmonic series, from whence they are derived; they ought each to bear the character, viz. The perfect major concord, composed of major 3d and 5th.

If then we connect and range successively, according to the nearest order, the notes which constitute these three concords, we shall have very exactly, as well in musical notes, as in numerical connections, the octave or ordinary diatonic scale rigorously established.

In notes, the thing is evident by a single operation.

In numerical connections, this is almost as easily proved, for supposing 360 for the length of the entire chord, these three notes C, G, F, will be as 180, 240, 270; their concords will be as follows:



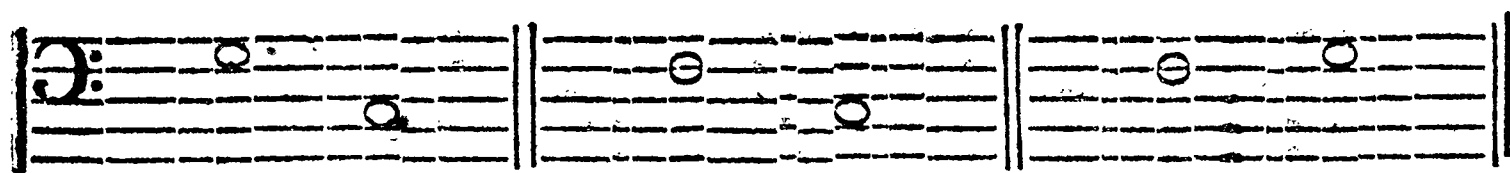
and the entire scale deduced from it, will be in the connections marked as follows:

Tone Major.	Tone Minor.	Semiton Minor.	Tone Major.	Tone Minor.	Tone Major.	Semitone Major.
180.	160.	144.	135.	120.	108.	96.
C	D	E	F	G	A	B

Where we see that all the intervals are just, except the perfect concord, D F A, in which the 5th D A is weak by a comma, as well as the minor third D F, on account of the minor tone D E; but in every system this error, or an equivalent one is inevitable.

In

In regard to the other alterations, which the necessity of using the same touches in different tones, introduces into our scale), Vide Modification.) The scale being once established, the principal use of the notes C G F, from whence it is derived, is the formation of the three cadences, which giving a progress of fundamental notes from one to the other, are the basis of all modulation. G being an harmonic means, and F, an arithmetical means betwixt the two terms of the octave, the passage from the middle to the extreme forms a cadance which takes its name from the middle which produces it, G C is then an harmonic cadence, F C an arithmetical, and we call mixt cadence, that which, passing from the arithmetical means to the harmonic means, is composed of the two before resolving on the extreme.



Harmonic Cadence. Arithmetical Cadence. Mixt Cadence.

Of these three cadences, the harmonic is the principal and the first in order : Its effect is of a flat harmony, strong, and terminating in an absolute sense.

The arithmetical is weak, sweet, and leaves a something still to be desired. The mixt cadence suspends the sense, and produces nearly the effect of the interrogative and admirative point.

From the natural succession of these three cadences, such as we see it in a former plate. There results exactly the fundamental basis of the scale ; and from their different intermixtures is derived the method of treating any tone, and modulating on it a series of airs, for each note of the cadence is supposed to bear the perfect concord as has been said before.

In regard to what is called "The Rule of the Octave", it is evident, that tho' we should not even admit the harmony which it specifies as pure and regular, as it is found only through dint of art and deductions, it can never be proposed, in quality of principle and a general law.

The composers of the 15th age, the generality of whom were excellent harmonists, used the whole scale as a fundamental basis of as many perfect concords as it had notes, except the 7th on account of the false 5th ; and this harmony well conducted, would have formed a very great effect, if the perfect concord on the mediant had not been rendered too harsh by these two false relations with the concord which precedes it, and that which follows.

To

To render this series of perfect concords as pure and sweet as possible, we must reduce it to this other fundamental bass, which furnishes with the precedent, a new source of varieties.

As we find in this formula, two perfect concords in minor third, viz. D A, it will be necessary to seek the analogy which the major and minor tones should have together in a regular modulation.

Let us consider the note eb of the example P, united to the two correspondent notes of the examples O and Q. taken as fundamental: it is found by this means as the Base, or foundation of a concord in major third; but taken as an arithmetical means between the entire chord and its fifth, as in the example X of the other plate: it is then found mediant or second base of the minor mode: So this same note, considered under two different references, and both deducted from the system, gives two harmonies; from whence it follows, that the scale of the major mode is a minor third above the analogous scale of the minor mode.

Wherefore the minor mode analogous to the scale of ut, is that of la, and the minor mode analogous to that of fa, is that of re.

Moreover, la and re, give exactly, in the fundamental bass of the diatonic scale, the two minor concords analogous to the two tones of ut and fa, determined by the two harmonic cadences of ut to fa and of sol to ut. The fundamental bass, wherein we make these two concords enter, is then as regular, and more varied than the precedent, which only contains the harmony of the minor mode.

In regard to the two last dissonances n and r of the example q, as they come from the diatonic genus, we will not yet speak of them.

The origin of the measure, the periods, phrases, and all the musical rhyme, is found also in the generation of the cadences, in their natural series, and their different combinations. First, the means being homogenous to its extreme, the two members of a cadence ought in their first simplicity, to be of the same nature and equal powers. Consequently the eight notes which form the four cadences, the fundamental bass of the scale, are equal together; and forming also four equal measures, one for each cadence, the whole gives a compleat sense, and an harmonic period.

Moreover, as the whole harmonic system is founded on the double and sesqui alter computation, which on account of the octave is confounded with the triple powers, in the same manner every good and sensible measure is resolved on that of two times, or that of three, all which is below, often attempted, and always unsuccessful, not being able to produce any good effect.

From the different foundations of harmony given by the three sorts of cadence, and from the different methods of intermixing them, arises the variety of the senses, of phrases, and the whole me-

U u u

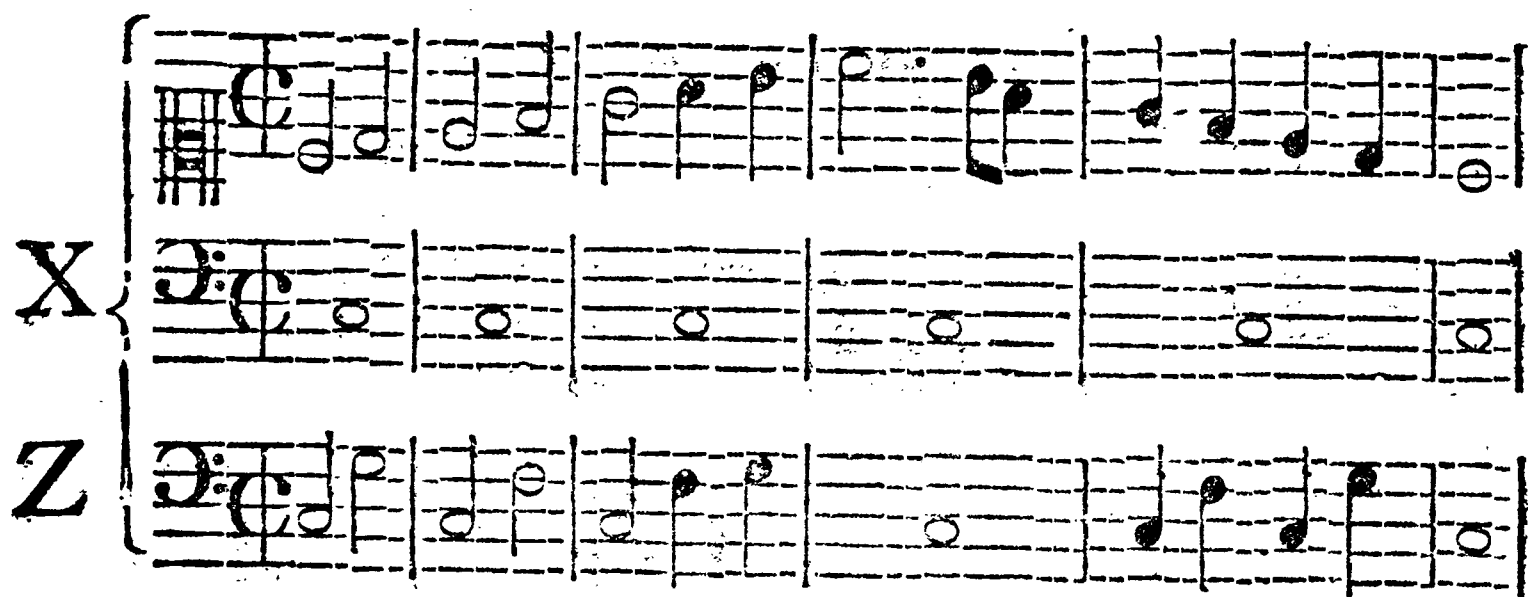
lody,

lody ; of which the ingenious musician expresses all that of the phrases for discourse, and punctuates the sounds as correctly as the Grammarian does the words.

From the measure given by the cadences, there results also the exact expression of the prosody and rhyme; for as the short syllable rests on the long, in the same manner the note which prepares the cadence, in rising, sustains itself and pauses on the note which resolves it in striking; which divides the times into strong and weak, as the syllables into long and short.

This shews how we can, even in observing the quantities, reverse the prosody and measure the whole *à contre tems*, when we strike the short syllables and raise the long; tho' we should think we observed their relative durations and musical powers.

The use of dissonant notes by conjoint degrees in the weak times of the measure, is also deduced from principles established thereon; for let us suppose the diatonic and measured scale as follows,



it is evident, that the note sustained or struck in the bass x, instead of the notes in the bass z, is only thus tolerated, because always returning on the strong times, it easily escapes our attention in the weaker; and the cadences, whose place it has, are not less supposed, which could not be, if the dissonant notes changed place, and were struck on the strong times.

Let us next see what sounds may be added or substituted to those of the diatonic scale, for the formation of the chromatic and enharmonic genera.

By inserting in their natural order the sounds given by the series of dissonances, we shall first have the note sol diesis n, which gives the chromatic genus, and the regular passage of the major tone of ut to its minor corresponding la.



## Chromatic Tetrachord.



We have next the note *r* or *fi* b flat, which with that *I* have spoken of, gives the enharmonic genus.

Tho' in regard to the diatonic, the whole harmonic system is, as has been seen, contained in the sextuple computation, yet the divisions are not so bounded to this extent, but betwixt the 19th or

triple fifth— $\frac{1}{6}$ , and the 22d or quadruple octave  $\frac{1}{8}$ , we may insert

an harmonic means  $\frac{1}{7}$  taken in the order of aliquots, and given also by nature in the french-horns and trumpets, and of an intonation very easy on the violin.

This term  $\frac{1}{7}$ , which harmonically divides the interval of the 4th sol ut or  $\frac{7}{8}$ , does not form with the sol a just minor third,

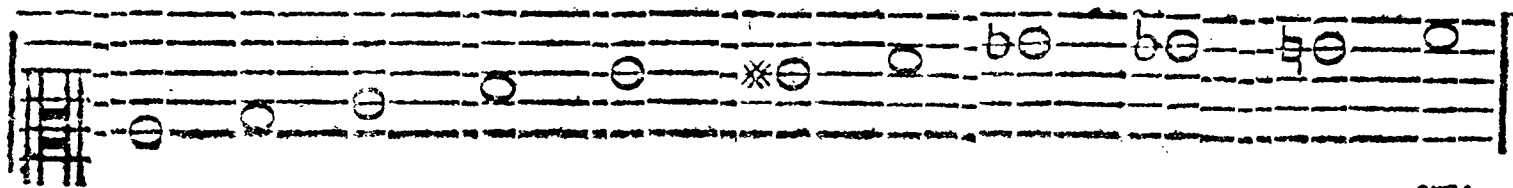
whose reference would be  $\frac{5}{6}$ , but an interval a little less, whose

whose reference is  $\frac{6}{7}$ , so that we cannot exactly express it in notes;

for the *la* diesis is already too strong: We shall represent it by the note *fi*, preceded by the sign  $\text{♭}^\flat$ , a little different from the ordinary b flat.

The scale augmented, or as the Greeks say, the *Epaissi Genus* of these three new sounds placed in their rank, will be then as the example.

## Genus épaiſſi.



The

The whole for the same tone, or at least for the tones naturally analogous.

Of these three added sounds, the first of which, as Tartini shews, constitutes the chromatic genus, and the third the enharmonic; the sol diesis and the si b flat are in the order of dissonances; but the si

○ does not fail to be consonant, tho' it does not belong to the diatonic genus; being out of the sextuple progression which contains and determines this genus; for since it is immediately given by the harmonic series of the aliquots, since it is the harmonic medium between the 5th and octave of the fundamental sound, it follows from thence that it is consonant as themselves, and neither wants to be prepared or saved: This is also what the ear confirms perfectly in the regular use of this kind of 7th.

By the assistance of this new tone, the basis of the diatonic scale returns exactly on itself, in descending, according to the nature of the circle which represents it; and the 14th or 7th redoubled, is then found regularly saved by this note on the tonic or fundamental basis, as all the other dissonances.

Would you wish to deduce from the principles before placed, the rules of modulation, take the three major relative tones, ut, sol, fa, and the three minor analogous tones la, mi, re, you will have 6 tonics; and these are the only ones on which we can modulate, in going from the principal tone: Modulations which we intermix by choice, according to the character of the air, and the expression of the words; not, however that amongst these modulations there are some preferable to others: These preferences even immediately discovered by the sentiment, have also their principles and numerical powers, and their exceptions, whether in the different impressions which the composer would make, or in the greater or lesser union he gives his phrases. For instance, the most natural and most agreeable modulation in major mode, is that which passes from the tonic ut, to its dominant sol, because the mode major, being founded on harmonic divisions, and the dominant harmonically dividing the octave, the passage from the first term to the middle is the most natural. On the contrary, in the minor mode la, founded on the arithmetical proportion, the passage from the tone to the 4th note re, which arithmetically divides the octave, is much more natural than the passage from the dominant to the tone mi, which harmonically divides the same octave, and if we examine attentively, we shall find, that the modulations more or less agreeable, all depend on the greater or smaller references established in this system.

Let us next examine the concords or particular intervals in the minor mode, which are deduced from the sounds added to the scale.

The

The analogy between the two modes gives the three following concords,



all whose sounds have been found consonant in the establishment of the major mode. There is only the added sound  $g \times$  whose consonance can be disputed.

We must next take notice, that this concord is not resolved in the dissonant concord of diminished 7th, which would have sol diesis for bass, because besides the diminished 7th sol diesis and fa natural, there is also found a diminished third sol diesis, and si b flat, which breaks all proportion, which experience confirms by the unsurmountable roughness of this concord. On the contrary, besides that this arrangement of superfluous 6th pleases the ear, and is very harmoniously resolved, Mons. Tartini pretends that the interval is really good, regular, and even consonant, First, because this 6th is very nearly an harmonic 4th, to the three notes B b, d, f, repre-

sented by the fractions  $\frac{1}{4} \frac{1}{5} \frac{1}{7}$ , of which  $\frac{1}{7}$  is the proportional

exact harmonic 4th. Secondly, because that same 6th, is very nearly the harmonic means of the 4th fa, si b flat, formed by the 5th of the fundamental sound and its octave. If, on this occasion, we make use of the note marked sol diesis, rather than the note marked la b flat, which seems to be the true harmonic means, it is not only that this division would remove us very far from the mode, but even that this same note la b flat, is only an harmonic means in appearance, provided that, the 4th fa si b flat, is changed and too weak by a comma; so that sol diesis, which has a less connection to fa, draws nearer to the true harmonic means than la b flat, which has a greater connection to the same fa.

We ought besides to observe that all the sounds of this concord, which re-unite in a regular harmony, are exactly the four same sounds furnished beforehand, in the dissonant series Q by the complements of the divisions of the harmonic sextuple: which, in some respect, closes the harmonic circle, and confirms the union of all the parts in the system.

By the assistance of this 6th, and all the other sounds, which harmonic and analogous proportion furnish in the minor mode,

we

we have a very easy method of prolonging and varving the harmony, without going out of the mode, or even of making use of any real dissonance, as may be seen in the example of the counter-point given by Mons. Tartini, and in which he pretends not to have used any dissonance unless the 4th, and final 5th.

This same superfluous 6th, has also more important and nicer uses in modulations, turned by enharmonic passages, in that it may be indifferently taken in practice for the 7th bemolized by the sign  $\flat$ , from which this diesis'd 6th differs very little in calculation, and not at all on the keys. In that case, this 7th, or that 6th always consonant, but marked sometimes by diesis, and sometimes by b flat, according to the tone from whence we go out, and that which we enter, produces in harmony apparent and sudden metamorphoses, of which, though regular in this system, the composer would be very much embarrassed to give a reason in any other, as may be seen in the following examples,

I. {

II. {

Corrected

III. {

Corrected

particularly

particularly in that marked +, when the fa taken as natural, and forming an apparent 7th which cannot be saved, is at bottom, no more than a superfluous 6th formed by a mi diesis, on the sol of the bass; which enters into the rigor of the rules. But it is superfluous to extend on the finesses of the art, which does not escape ingenious harmonists, and which others would only abuse, in using them *mal a propos*. It is sufficient to have shewn that the whole is held on something, and that the true system of nature leads to the most intricate and hidden turnings of the art.

---

## T.

**T**. This letter is sometimes written in partitions to design the part of the tenor, when this tenor takes the place of the bass, and is written on the same staff, the bass preserving the pause.

Sometimes in the parts of symphony, the T signifies tutti, and is opposed to the letter S, or the word solo, which in that case must have necessarily been written before in the same part.

TA. One of the four syllables with which the Greeks sol-fa their music, (Vide to Sol-fa.)

TABLATURE. This word formerly signified the totality of the signs in music; so that, whoever understood the notes, and could sing *à livre ouvert*, was said to be skilled in the tablature.

At present the word tablature is restrained to a certain method of marking by letters, which we use for the chord instruments touched by the fingers, such as the Lute, the Guittar, and formerly the Theorb, and the Viol.

To mark in tablature, we draw as many parallel lines as the instrument has chords. We then write on those lines some letters of the alphabet, which expresses the different positions of the fingers on the chords, from semi-tone to semi-tone. The letter A denotes the chord a vide, b, expresses the first position, c the second, d the third, &c.

In regard to the powers of the notes, they are marked by ordinary notes of similar powers, all placed on the same line, because these notes serve only to mark the power, and not the degree.

When the powers are always similar, that is, that the method of scanning the notes is the same in all measures, we are satisfied with marking it on the first, and we proceed.

Herein lies all the mystery of the tablature which we will assist towards an explanation by the inspection of Fig. V. Plate II.

Wherein I have pricked down the first couplet of the *Folies d'Espagne* in tablature for the guittar.

As the generality of instruments, for which the tablature measured, are out of use, and as we have found the ordinary notes more convenient for those which are still played, the tablature is almost entirely laid aside or only serves for a scholar's first lessons.

**TACET.** A Latin word used in music to denote the silence of a part. When, in the course of a piece of music, we would mark a silence of a certain time, we write it with rests or pauses. But when some part ought to preserve a silence throughout an entire piece, we express it by the word *tacet*, written in the part below the name, or first notes of the air.

**TAIL.** We distinguish in notes the head and the tail. The head is the body of the note itself. The tail is that perpendicular stroke which is fixed to the head, and which ascends or falls indifferently across the staff. In church music, the greatest part of the notes have no tail, but in our music there is only the semi-breve without it. Formerly the breve had none also; but the different positions of the tail served to distinguish the powers of the other notes and particularly the plica.

At present the tail added to the notes of church music prolongs their duration; it abridges it, on the contrary, in ours, since a minimum is equal to only half a semi-breve.

**TAMBOURIN.** A kind of dance very much in fashion at present on the French stage. Its air is very lively, and is struck in two quick times. It ought to be well cadenced and bold, in imitation of the flute amongst those of Provence, and the bass ought to re-strike the same note, in imitation of the Galoubé, with which the player on the flute is generally accompanied.

**TASTE.** Of all natural gifts, taste is that which is most felt and least explained: It would not be what it is, if it could be defined; for it judges of objects, in which the judgment is not concerned, and serves, as it were, as spectacles to reason.

There are in melody, some airs more agreeable than others, tho' equally well modulated. There are, in harmony things striking, and others not so, all equally regular. There is in the union of pieces, an exquisite art of making the one receive a power from the other, which depends on something more nice than the law of contrasts. There are in the execution of the same piece, different methods of rendering it, without ever removing it from its character: Of these methods, the one pleases more than the others, and far from being able to submit them to rules, we cannot even determine them. Reader, give me a cause for their differences, and I will explain you what is taste.

Each man has his peculiar taste, by the which he gives to things, which he calls beautiful and excellent, an order which belongs to himself alone. One is more touch'd with pathetic pieces; the other prefers a gay air. A sweet and flexible voice

will



will fill its tunes with agreeable ornaments, a sensible and strong voice will animate them with the accents of passion. The one will seek simplicity in melody, the other will aim at laboured strokes, and each will call that an elegance of taste, which he has preferred.

This diversity comes sometimes from the different dispositions of the organs, from which taste is extracted; Sometimes from the particular character of each man, which renders him more sensible to one pleasure or failing, than to another; sometimes from the divinity of age or sex, which turns the desires towards the different objects. In all these cases, each having only his own taste to oppose to that of another, it is evident, that there is no dispute to be made.

But there is also a general taste, on which all organised persons agree, and it is this only, to which we can absolutely give the name of taste. Let a concert be heard by ear sufficiently exercised, and men sufficiently instructed; the greatest number will generally agree on the judgment of the pieces, and on the order of preference convenient to them. Ask each one the reason of his judgment; there are things on which they will give an almost unanimous opinion. These are the things which may be submitted to rules, and this common judgment is that of the artist and the connoisseur. But amongst these things, which they agree to find good or ill, there are some on which they cannot authorize their judgment by any reason, solid and common, to the rest; and this last judgment belongs to a man of taste. If there is not found a perfect unanimity, it is, that all have not equally good organs; that all are not persons of taste; and that the prejudices of custom or education, often change, by arbitrary conventions, the order of natural beauties. In regard to this taste, we may dispute on it, by another method of determining the variance, than that of counting the notes, when we do not even agree to that of nature. Here then is what ought to decide, in respect to the preference of French and Italian music.

Genius creates, but taste makes the choice; and a too abundant genius is often in want of a severe censor, to prevent it from abusing its valuable riches. We can do great things without taste, but it is that alone which renders them interesting. It is taste, which makes the composer catch the ideas of the poet: It is taste, which makes the executant catch the ideas of the composer.

It is taste, which furnishes to each whatever may adorn and augment their subject; and it is taste which gives the audience the sentiment of their agreements.

Taste however is by no means sensibility. We may have much taste, with a frigid soul; and a man transported with things really passionate, is little touched with the pleasing. It seems that taste

is more particularly connected with the smaller expressions, and sensibility to the greater.

**TASTE in SINGING.** By this term is called in France, the art of fingering or playing the notes with the graces suitable to them, to cover a little the flatness of the French airs. We find at Paris several instructors of this taste, whose principles may be found at the word *graces*.

The taste in fingering consists also much in artificially giving to a finger, the tone, whether good or ill, of some actor or actress in vogue. Sometimes it consists in squeaking thro' the nose, sometimes in imitating a duck, a goat, &c. &c, but all these, are temporary graces, which change incessantly with their authors.

**TASTO SOLO.** These two Italian words, written in a thorough bass, and generally under some organ point, mark that the accompanist ought to make no concord with the right hand, but only to strike with the left the marked note, and at most, its octave, without adding any thing; provided that it would be almost impossible for him to follow the turning of the harmony or notes of taste, which the composer makes to pass on the bass during that time.

**TE.** One of the four syllables by which the Greeks sol fa the music.

**TENDERLY.** This adverb written at the head of an air, expresses a slow and sweet movement, sounds drawn pleasingly and animated both tender and touching. The Italians make use of the word *amoroso*, to express nearly the same thing; but the character of the *amoroso* has more accent, and breathes a *je ne fais quoi* of less flat and more passionate.

**TENEDIUS.** A kind of nome for flutes in the ancient Greek music.

**TENOR.** The second of the four parts of music, counting from flat to sharp. It is the part which is most convenient to the common voice of a man; which is the cause of its often being called thro' preference "The human Voice".

The tenor is sometimes divided into two other parts; the one more elevated which we call first of counter tenor, the other lower, called second or bass tenor. This last is in some respects a midling or common part, between the tenor and bass, and is also called on that account *Concordant*. (Vide Parts.)

We hardly make use of any tenor in the French operas: On the contrary, the Italians prefer in theirs the tenor to the bass, as a voice more flexible, as sonorous, and much less rough.

**TENOUR.** A term of church music which marks in psalmody the part which reigns from the end of the intonation as far as the mediation, and from the mediation, as far as the termination.

This

This tenour, which we may call the dominant of the psalmody, is almost always on the same tone.

**TENTH.** An interval, which comprehends nine conjoint degrees, and consequently 10 diatonic sounds, in reckoning the two which form it. This is the octave of the third, or the third of the octave, and the 10th is major or minor, as the simple interval, whose replique it is. (Vide Third.)

**TETRACHORD.** Was, in ancient music, an order or particular system of sounds, whose extreme chords founded the 4th.

This system was called tetrachord, because the sounds which composed it, were generally four in number; which however was not always true.

Nichomachus, according to Boetius, says, that music in its first simplicity had only four sounds or chords, whose two extremes founded the diapason together; whereas the two mean distances of a tone one from the other, founded each the fourth with the extreme, to which it was nearest, and the fifth with that from which it was most distant. He calls that the tetrachord of Mercury, from the name of him who was said to be its inventor.

Boetius also says, that after the addition of three chords made by different authors, Lychaon of Pamos, added an 8th, which he placed betwixt the trite and paramesis, which were formerly the same chord; which rendered the octachord complete, and composed of two disjoint tetrachords from the conjoint, which they were formerly in the heptachord.

I have consulted the work of Nicomachus, and it appears to me that there is nothing said to that purpose. He says on the contrary, that Pythagoras having remarked, that, tho' the mean sound of the two tetrachords founded the consonance of the 4th with each of the extremes, these extremes compared together were entirely dissonant; he inserted between the two tetrachords an 8th sound, which, dividing them by a tone of interval, substituted the diapason or the octave in the place of the 7th between their extremes, and produced also a new consonance between each of the two mean chords and the extreme opposed to it.

On the method, by which this addition was made, Nicomachus and Boetius are equally in an error; and not contented with contradicting each other, each of them even contradicts himself. (Vide System, Trite, Paramesis.)

If we paid attention to what Boetius and other more ancient writers say, we could give no fixed bounds to the extent of the tetrachord; but whether we divide or flatten the voice, we shall find, that the most exact definition is that of old Bacchius, and that also which I have preferred.

In effect, this interval of 4th is essential to the tetrachord; for which reason the extreme sounds, which form this interval are

X x x 2

called

called immoveable or fixed, by the ancients; whereas they call moveable or changing the middle sounds, because they may be concordant in several methods.

On the contrary, the number of four chords, from whence the tetrachord has taken his name, is so little essential to it, that we see, in ancient music, some tetrachords which had only three.

Such were, at one time, the enharmonic tetrachords. Such was according to Meibomius, the second tetrachord of the ancient system, before a new chord was inserted. In regard to the first tetrachord, it was certainly complete before Pythagoras, as we see in the Pythagorean Nicomachus; which does not hinder Mons. Rameau from affirming, that, according to the unanimous report Pythagoras found the tone, the diton, the semi-tone; and that, on the whole, he formed the diatonic tetrachord, (Take notice that that would make a tetrachord), instead of saying that Pythagoras found only the computations of those intervals, which, according to a more unanimous report, were known a long time before him.

The tetrachords did not long continue bounded to the number of two: there was very soon a third formed, then a fourth; a number, to which the system of the Greeks continued fixed.

All these tetrachords were conjoint; that is, the last chord of the first, always served as the first chord of the second, and soon, except a single place in flat, or in sharp of the third tetrachord, where there was a disjunction, which placed a tone of interval betwixt the higher chord of the inferior tetrachord, and the lowest of the superior. (Vide Synaphe, Diazeuxis.) Moreover, as this disjunction of the third tetrachord, was sometimes made with the second, sometimes with the fourth; this made a particular name peculiar to this third tetrachord, in each of the two cases.

So that, though there were properly only four tetrachords, there were however five denominations.

ut ✕		re ✕		fa ✕		sol ✕		la ✕			
ou		ou		ou		ou		ou			
re b.		mi b.		sol b.		la b.		fi b.			
Ut		re		fa		sol		la		fi	ut

Here are the names of these tetrachords. The flattest of all the four, and which was placed a tone above the chord proslambanomenos, is called the tetrachord hypaton; The second in ascending, which was always conjoint with the first, was called the tetrachord meson;

meson ; The third, when it was conjoint to the second, and separated from the fourth, then this third tetrachord took the name of diezeugmenon. Lastly, the fourth was called the tetrachord hyperbolean. Aretin added to this system a 5th tetrachord, which Meibomius pretends that he only re-established. However it may be, the particular systems of the tetrachords gave at last place to that of the octave, which furnished them all,

The two extreme chords of each of these tetrachords were called immoveable, because their concord never changed ; but each contained also two middling chords, which, tho' in true concord in all the tetrachords, were however subject, as I have said, to be raised or lowered, according to the genus, and even the kind of the genus ; which was equally done in all the tetrachords. For this reason the chords were called moveable.

There were six principal kinds of concord, according to the Aristoxenians, viz. Two for the diatonic genus, three for the chromatic, and one only for the enharmonic. Ptolomy reduces these six kinds to five.

These different kinds, reduced to the most common practice, formed only three, one for each genus.

I. The diatonic ordinary concord of the tetrachord formed three intervals, the first of which was always of a semi-tone, and the two others each of a tone, in this manner : mi, fa, sol, la.

For the chromatic genus, it was necessary to lower the third chord a semi-tone, and they had two consecutive semi-tones, then a minor third, mi, fa, fa diesis, la.

Lastly, for the enharmonic genus, it was necessary to lower the two chords from the middle, till we had two fourths of consecutive tones, then a major third, mi, mi demi diesis, fa, la, which formed between the mi diesis and the fa, a real enharmonic interval.

The similar chords, though they are sol-fa'd by the same syllables, did not bear the same names in all the tetrachords, but in the flat tetrachords they had denominations different from those which they had in the sharp tetrachords.

The homologous chords, considered as such, bore general names which expressed the connection of their position in their respective tetrachords ; wherefore, the name of Barypycni was given to the first sounds of the confined interval, that is, to the flattest sound of each tetrachord ; from the mesopycni to the seconds or means, from the oxypycni to the third or sharp, and from the apycni to those, which did not touch the confined intervals on any side. (Vide System.)

This division of the system of the Greeks by similar tetrachords, as we divide ours by octaves similarly divided, proves, I think that this system had been produced by no sentiment of harmony, but that they endeavoured to render, by more confined intervals, the

the inflexions of the voice, which their sonorous and harmonious language gave to their sustained recitation, and particularly to that of their poetry, which was then a veritable music; so that the music was then no more than the accent of the words, and did not become a separated art till after a long track of time. However it may be, it is certain that they confined their primitive divisions to four chords, all the rest of which were only repliques, and that they looked on all the other tetrachords, only as so many repetitions of the first. From whence I conclude, that there is no more analogy between their system and ours, than between a tetrachord and an octave, and that the fundamental movement in our mode, which we give as a basis to their system, has no connection with it in any respect.

I. Because a tetrachord formed for them as complete a whole, as an octave forms for us.

II. Because they had only four syllables to sol fa, whereas we have seven.

III. Because their tetrachords were conjoint, or disjoint at will, which expressed their entire respective independance.

IV. And lastly, because the divisions were exactly similar in each genus, and were practised in the same mode, which could not be done in our ideas by any truly harmonic modulation.

**TETRADIAPASON.** Is the Greek name of the quadruple octave, which we also called 29th. The Greeks knew no more than the name of this interval, for their system of music did not reach it. (*Vide System.*)

**TETRATONON.** Is the Greek name of an interval of four tones, called at present superfluous 5th. (*Vide Fifth.*)

**TEXT.** Is the poem, where the words are, which are set to music. But this word is obsolete in this sense, and *text* is no longer used amongst musicians, but the *words*.

**THE.** One of the four syllables which the Greeks used to sol fa.

**THESIS.** Lowering, or position. By this name was formerly called the strong, or struck time of the measure.

**THO.** One of the four syllables which the Greeks used to sol fa.

**THIRTEENTH.** An interval, which forms the octave of the 6th or the 6th of the octave. This interval is called 13th, because it is formed of 12 diatonic degrees, that is, of 13 sounds.

**TIE.** There is a tie in harmony, and a tie in music.

The tie has a place in harmony, when this harmony proceeds by such a progress of fundamental sounds, as that some one of the sounds which accompany that we leave, continues and accompanies that which we pass. There is a tie in the concords of the tonic, and dominant, since the same sound forms the 5th of the first and the octave of the second; there is a tie in the concords of the tonic  
and



and sub-dominant, provided that the same sound serves as 5th to one, and octave to the other. Lastly, there is a tie in the dissonant concord every time that the dissonance is prepared, since the preparation itself is nothing else than the tie.

The tie in the air has place every time that we pass two or more notes, under a single stroke of the bow, or the throat, and is marked by a bent stroke, with which the notes are covered, which ought to be united together.

In church music we call a tie, a continuance of several notes passed on the same syllable, because on the paper they are generally tied or united together.

Some name a tie also what is properly called syncope.

**TIED.** We call tied notes, two or more notes, which we pass with a single stroke of the bow on the violin, and the violincello; or with a single stroke of the tongue on the flute, and the hautboy: In a word, all the notes which are under the same tie.

**TIERCE.** The last of the simple and direct consonances in the order of their generation, and the first of the two imperfect consonances.

As the Greeks did not admit it as consonant, it had no general name amongst them; but it took only the name of less or greater interval, from which it was formed. We call it tierce, because its interval is always composed of two degrees, and three diatonic sounds. To consider the tierces only in the last sense, that is, by their degrees, we find of four sorts, two consonant, and two dissonant. The consonants are first. The major tierce, which the Greeks called diton, composed of two tones, as from ut to mi. Its connection is from 4 to 5. Secondly, the minor third called by the Greeks hemiditon, and composed of a tone and a half, as mi sol. Its connection is from 5 to 6.

The dissonant tierces are first. The diminished tierce, composed of two major semi-tones, as si re b flat, whose reference is from 125 to 144. Secondly, the superfluous tierce, composed of two tones and a half, as fa la diesis. Its reference is from 96 to 125.

This last interval not having place in a same mode, is never used either in harmony, or in melody. The Italians practice sometimes the diminished third in the air, but it has no place in any harmony; and this is the reason that the concord of superfluous 6th has no variation.

The consonant tierces are the spirit of harmony, particularly the major third, which is sonorous and brilliant; the minor third is more tender and sorrowful. It has great sweetness when its interval is redoubled, that is, when it forms the 10th. In general the tierces must be carried above; below they are flat and little harmonious,

harmonious, for which reason a duet of basses has never a good effect.

Our ancient musicians had almost as severe laws on the tierces as on the 5ths. It was forbidden to make two together, even of different kinds, particularly by similar movements. At present that we have generalized by the good laws of the mode, the peculiar rules of the concord, we form without any error, by similar or contrary movements, by conjoint and disjoint degrees, as many consecutive major or minor tierces as the modulation can suffer, and we have very agreeable duets which from beginning to end, proceed only by tierces.

Tho' the tierce enters into the generality of concords, it does not give its name to any, unless to that which some call concord of tierce 4th, and which is most commonly known by the name of smaller 6th. (Vide Concord Sixth.)

**TIERCE of PICARDY.** The musicians call by this term, thro' pleasantry, the major tierce given, instead of the minor, to the final of a piece, composed in minor mode. As the major perfect concord is more harmonious than the minor, it was formerly a law to finish on the first; but this final, tho' harmonious, had something grating which caused it to be forsaken. We always finish now by the concord which is suitable to the mode of the piece, unless when we would pass from minor to major, for then the final of the first mode bears the major third elegantly to announce the second.

It was called tierce of Picardy, because the use of this final continued longest in the church music, and consequently, in Picardy, where they have music in a great number of Cathedrals and other Churches.

**TIME.** The measure of a sound, in regard to its duration.

A succession of sounds, however well it may be directed in its movement, in its degrees from flat to sharp, or sharp to flat, produces no more, as it were, than indeterminate effects. It is the relative and proportional durations of these same sounds, which fix the true character of music, and give it its greatest energy. The time is the spirit of the air: Those airs, whose measure is slow, lead us naturally to sorrow; but a gay, lively and well cadenced air excites a joy in us, and the feet can hardly be retained from dancing. Remove the measure, destroy the proportion of the times, the same airs which these proportions would render agreeable, being left without charms and without force, will become incapable of pleasing or interesting. The time on the contrary has its force in itself, it depends on that alone, and may subsist without the diversity of sounds. The drum gives us an instance of it, always rough and very imperfect, because the sound of it cannot be sustained.

We

We consider time in music, either with regard to the general movement of an air, and in this sense we say that it is slow or quick. (Vide Measure, Movement,) or, according to the aliquot parts of each measure, parts, which are expressed by movement of the hand or foot, which are particularly called times; or lastly, according to the peculiar power of each note. (Vide Power of the Note.)

I have sufficiently spoken, at the word rhyme, of the times in Greek music, it remains now to speak of those in modern music.

Our ancient musicians were acquainted with no more than two kinds of measure or of time: the one of three times, which they called perfect measure; the other of two, treated as an imperfect; and they called time, modes or prolations, the signs which they added to the cleff to determine one or the other of these measures.

These signs did not serve that single purpose as at present, but they fixed also the relative power of the notes, as we may have already seen at the words mode and prolation, in regard to the maximum, the longue and semi-breve. In regard to the breve, the method of dividing it, was, what they precisely called time, and this time was perfect or imperfect.

When the time was perfect, the breve was equal to three semi-breves, and they expressed that by an entire circle, barred or not

barred, and sometimes also by this composed cypher  $\frac{3}{1}$ .

When the time was imperfect, the breve was equal to only two semi-breves, and they expressed that by a demi-circle or C. Sometimes they turned the C backwards, and this marked a diminution of the half on the powers of each note. We denote the same thing at present in barring the C. Some have also called minor times, that measure of the barred C, where the notes continue only the half of their ordinary power; and major time, that of the full C, or of the ordinary measure in four times.

We have well retained the triple measure of the ancients as well as the double, but by their strange methods of dividing the notes in two methods, we have retained only the sub-double, tho' we are not less in want of the other; so that to divide a measure or a time into three equal parts, signs are wanting to us; and it is with difficulty we know the art of managing them. We must have recourse to the cypher 3, and other expedients, which may shew the insufficiency of the signs.

We have added to ancient music, a combination of times, which is the four timed measure; but as it may be always resolved into two 2 timed measures, we may say that we have absolutely no more than two times or three times for the aliquot parts of all our different measures.

Y y y

There

There are as many different powers of times as there are kinds of measures and modifications of the movement. But when once the measure and movement are determined, all the measures ought to be perfectly equal, and all the times of each measure perfectly equal together. Moreover, to render this sensibility equal, we strike each measure, and mark each time by a movement of the hand or foot, and on these different movements, we rule exactly the different powers of the notes, according to the character of the measure.

It is an astonishing thing to see with what precision, we learn the art, by the assistance of a little custom, of making and following all the times with so perfect an equality, that there is no pendulum, which surpasses the hand or foot of a good musician in justness; and that lastly the sentiment of this equality alone is sufficient to guide him, and supplies the place of every sensible movement; so that in each concert the same measure follows with the greatest precision, without another taking notice of it, or even himself remarking it.

In the different time of a measure, there are some more sensible, more marked than the rest, tho' of equal powers. The time which marks most, is called strong time; that which is marked less, is called weak. This is what Mons. Rameau, in his treatise on harmony, called good and ill time. The strong times are, the first in the measure of two times; the first and third in the measures of three and four. In regard to the second time it is always weak in all the measures, and it is the same thing with the fourth in the four timed measure.

If we sub-divide each time, into two other equal parts, which we may call also times, or half times, we shall have besides a strong time, for the first half, a weak time for the second, and there is no part of a time, which may not be sub-divided in the same manner.

Every note which begins on the weak time, and finishes on the strong is a note *à contre tems*, and because it disgusts and roughens the measure in some respects, it is called syncope. (Vide Syncope)

These observations are necessary to learn a good method of treating the dissonances. For every dissonance well prepared should be on the weak time, and struck on the strong; except however in the course of avoided cadences, where this rule, tho' applicable to the first dissonance, is not equally so to the rest. (Vide Dissonance, &c.)

**tone.** This word has several senses in music.

First, It is taken for an interval, which characterises the system and the diatonic genus. In this acceptation, there are two sorts of tones, viz. The major tone, whose reference is from 8 to 9, and which results from the difference of the 4th to the 5th; and the minor tone, whose reference is from 9 to 10, and which results from the difference of the minor third to the fourth.

The

The generation of the major tone, and that of the minor are equally found in the second fifth re beginning by ut; for the quantity by which this re surpasses the octave of the first ut, is in the connection from 8 to 9, and that, in which this re is surpassed by mi, major third of this octave, is in the connection from 9 to 10.

Secondly. We call tone the degree of elevation which the voice takes, or on which the instruments ascend, to execute the music.

It is in this sense that we say, in a concert, that the tone is too high or too low. In the churches, there is a tone of chorus peculiar to their music. There is a chapel tone, and an opera tone for the music. This last has nothing fixed, but in France it is generally lower than the other.

Thirdly. We give also the same name to an instrument which serves to give the tone of the concord to the whole orchestra.

This instrument which some call also chorist, is a whistle, which by means of a kind of graduated sucker, by which we lengthen or shorten the pipe at will, gives always nearly the same sound under the same division. But that which depends on the variations of the air, nearly prevents us from being assured of a fixed sound, that it should be exactly the same. Perhaps, since it exists from music, we have never concerted it twice on the same tone. *Mons. Diderot*, has given, in his principles of acoustics, the methods of fixing the tone with much more precision, by remedying the variations of the air.

Fourthly, and lastly. Tone is taken for a rule of modulation relative to a note or principal chord, which is called tonic. (*Vide Tonic.*)

On the tones of the ancients. (*Vide Mode.*)

As our modern system is composed of 12 chords or different sounds, each of these sounds may serve as a foundation to a tone, that is, be its tonic. There are already 12 tones, and as the major and minor modes are applicable to each tone, there are 24 modulations, of which our music is susceptible on these 12 tones. (*Vide Modulation.*)

These tones differ together by the different degrees of elevation, betwixt the flat and sharp which the tonics maintain. They differ also by the divers alterations of the sounds and intervals, produced in each tone by the modification, so that, on a well tuned harpsichord, a skilful ear recollects without trouble whatsoever sound he hears by the modulation; and these tones are equally known on tuned harpsichords higher or lower the one than the other; which shews that this knowledge comes at least as much from the different modifications as from the degree of elevation which the tonic maintains on the keys.

Y y y 2

From

From thence arises a source of varieties and beauties in the modulation, a diversity and admirable energy in the expression. From thence arises lastly the faculty of exercising different sentiments with similar concords struck in different tones. Are we in want of the majestic, the flat? L F ut fa, and the major tones by b flat will express it nobly. Is the gay, the brilliant wanting? Take A mi la, Da la re, the major tones by diesis. Do we require the affecting, the tender? Take the minor tones by b flat. C sol ut minor conveys tenderness in the soul; F ut fa minor reaches the mournful, and expresses sorrow. In a word, each tone, each mode, has its peculiar expression, which we must study, and herein is one of the methods which render an ingenious composer master, in some respects, of the affections of those who listen to him: It is a kind of equivalent to the ancient modes, tho' very much removed from their variety and their energy.

It is, however, of this agreeable and rich diversity, that Mons. Rameau would deprive the music, by introducing an entire equality and monotony in the harmony of each mode, by its rule of the modification; a rule already so often proposed and abandoned before him. According to this author, it would render the harmony more perfect. It is certain, however, that nothing can be gained in this on one side, which is not lost on the other; and tho' we should suppose (which is not) that harmony, in general, would be rendered more pure, would that make any amends for what is lost on the side of the expression? (Vide Modification.)

**tone of the fourth.** By this term the organists and musicians of the church have called the plagal of the minor mode, which stops and finishes on the dominant instead of falling on the tonic. This name of the tone of fourth is derived from such, being the modulation of the fourth tone in church music.

**tones of the church.** These are the methods of modulating the church-music on such or such a final, taken in the prescribed number, by following certain rules admitted in all the churches where the Gregorian chant is practised.

We reckon eight regular tones, four of which are authentic or principal, and four plagal or collateral. We call authentic tones those where the tonic occupies nearly the lowest degree of the music; but if the air descends three degrees lower than the tonic, in that case the tone is plagal.

The four authentic tones have their finals a degree one from the other, according to the order of these four notes, re, mi, fa, sol. So the first of these tones answering to the doric mode of the Greeks, the second answers to the phrygian; the third to the æolian, (and not to the lydian, as the symphonists say); and the last to the mixo-lydian. It is Saint Miroclet, bishop of Milan,



lan, or, according to others, Saint Ambrose, who, about the year 370, chose these four tones to compose the chant of the church of Milan; and it was, they say, the choice and approbation of these two bishops which occasioned the name of authentics to be given to these four tones.

As the sounds used in these four tones, did not take up all the disdiapason, or the 15 chords of the ancient system, Saint Gregory formed the project of using them all by the addition of four new tones called plagal, which having the same diapasons as the precedent, but their final being raised a fourth, answers properly to the hyper-dorian, the hyper-phrygian, the hyper-æolian, and the hyper mixo lydian. Others attribute the invention of this last to Guid' Arezzo.

It is from thence that the four authentic tones have each a plagal, as collateral, or supplement; so that after the first tone, which is authentic, comes the second tone, which is its plagal; the third authentic, the fourth plagal, and so on. Which causes that the modes or authentic tones are also called unequal, and the plagal, equal, in regard to their place in the order of sounds.

The discernment of the authentic or the plagal tones is indispensable in him who gives the tone of the chorus; for if the air is in a plagal tone, he must take the final nearly in the medium of the voice; and if the tone is authentic, he should take it in the bass.

Thro' a failure of this observation, the voice is often obliged to be forced or not distinctly heard.

There are also tones called mixed, that is, partaking of the authentic and plagal, or which are in principal and collateral parts; they are also called common modes or tones. In this case, the numerical name of the denomination of the tone is taken from that of the two which predominates, or which is most felt, particularly at the end of a piece.

Sometimes we make transpositions in a tone to the fifth. So, instead of re in the first tone, we shall have la as final, fi for mi, ut for fa, and so on. But if the order and modulation do not change, neither does the tone, tho' for the convenience of the voice the final may be transposed. These are observations to be made by the singer or organist who gives the intonation. To appropriate, as much as possible, the extent of all these tones, to that of a single voice, the organists have sought for the tones of music most correspondent to those. Here are those which are established.

1st Tone	—————	Re minor
2d Tone	—————	Sol minor
3d Tone	—————	La minor or Sol
4th Tone	—————	{ La minor, finishing on the dominant

5th

5th Tone	—————	Ut major or re
6th Tone	—————	Fa major
7th Tone	—————	Re major
8th Tone	—————	{ Sol major, causing the tone to be felt in the tone of ut

We might reduce these eight tones even to a smaller extent by placing in unison the highest note of each tone ; or, if we chuse, that which is most struck, and which is called, in the terms of church music, *dominant* ; but as it has not been found that the extent of all these tones thus managed exceeds that of the human voice, they have not thought proper to diminish this extent by transpositions more difficult and less harmonious than those in use.

The tones of the church have shewn no submission to the laws of the tones in music. They have no interest in a mediant, or a sensible note, their mode is little determined, and they leave the semi-tones, where they are found in the natural of the scale ; provided only that they neither produce a triton or false fifth on the tonic.

**TONIC.** The name of the principal chord on which the tone is established. All airs finish generally by this note, particularly in the bass. It is that kind of tierce, which the tonic supports, that determines the mode. Wherefore we can compose in the two modes on the same tonic. Lastly, the musicians find this property in the tonic, that the perfect concord rigourously belongs to it alone. When we strike this concord on another note, either some dissonance is understood, or that note becomes tonic for the moment.

By the method of transpositions, the tonic bears the name of ut in major mode, and of la in minor. (Vide Tone, Mode, Gamut, to sol fa, &c.)

Tonic is also the name given by Aristoxenes, to one of the three kinds of the chromatic genus, whose divisions he explains, and which is the ordinary chromatic of the Greeks, preceeding by two consecutive semi-tones, then a minor third. (Vide Genus.)

Tonic is sometimes an adjective. We say the tonic chord, tonic note, tonic concord, &c.

**TRAIN.** When two notes are separated by a disjoint interval, and this interval is filled with all its diatonic notes, this is called a train. The train differs from the fusée, in that the intermediary sounds which unite the two extremities are very quick, and not sensible in the measure, whereas those of the train having a sensible power, may be slow and even unequal.

The ancients called in Greek *ἀγωγὴς*, and in Latin *Ductus*, what we at present call train, and they distinguished three kinds of them

them. First. If the following sounds followed each other in descending, they called that εὐθεῖα, ductus rectus. Secondly. If they followed each other in descending, it was ἀνακάμπτουσα, ductus revertens. Thirdly. If after having ascended by b flat, they redescended by b sharp, or reciprocally, that was called περιφερής, ductus circumcurrens. (Vide Cuthia, Anacamptos.)

We should have enough to do at present, that the music is so laboured, if we were to give names to all these different passages.

**TRANSITION.** Is, in music, a method of sweetening the mount of a disjoint interval, by inserting diatonic sounds between those which form this interval.

The transition is properly a train not marked: Sometimes also it is only an extent of the voice, when the question is only to render the passage of a diatonic degree more sweet.

So, to pass from ut to re, with more sweetness, the transition is taken on ut.

Transition, in harmony, is a fundamental movement proper to change the genus or the tone in a sensible regular manner, and sometimes by intermediaries. So, in the diatonic genus, when the bass moves so as to require, in the parts, the passage of a minor semi-tone, it is a chromatic transition. (Vide Chromatic.)

If we pass from one tone to another by favour of a concord of diminished 7th, it is an enharmonic transition. (Vide Enharmonic.)

**TRANSLATION.** Is, in our ancient music, the removal of the signification of a point, to a note separated by other notes of this same point. (Vide Point.)

**TO TRANSPOSE.** This word has several senses in music.

We transpose in executing, when we transpose a piece of music in another tone, [than that wherein it is written. (Vide Transposition.)

We transpose in writing, when we mark a piece of music in another tone of music than that in which it has been composed. Which obliges us not only to change the positions of all the notes in the same connection, but also to number the cleff differently, according to the rules prescribed at the article cleff transposed.

We lastly transpose in sol-faing, when without paying attention to the natural name of the notes, we give them those that are relative to the tone, and to the mode in which we sing.

**TRANSPOSITION.** A change, by which we transport an air or a piece of music from one tone to another.

As there only two modes in our music, to compose in such or such a tone, is nothing else than to fix on such or such a tonic

tonic, that of the two modes which we have chosen. But as the order of sounds is not found naturally disposed on all the tonics, as it ought to be for the establishment of a same mode, we correct these differences by means of the diesis's or b's flat, with which the cleff is numbered, and which transports the two semi-tones from the place where they were, to that where they ought to be for the mode and tone in question. (Vide Transposed Cleff.)

When then we would transpose in a tone a composed air into another, it is first necessary to raise or lower its tonic and all the notes one or more degrees, according to the tone which we have chosen; then to number the cleff as the analogy of this new tone requires. All this is equal for the voice, for in calling ut always the tonic of the major mode, and la, that of the minor, they follow all the affections of the mode, without even paying attention to it. (Vide to Sol-fa.) But it is not a trifling attention for a symphonist to play in one tone what is marked in another; for, tho' he is guided by the notes which he has before him, his fingers must sound very different ones, and he should alter them quite differently according to the varied method with which the cleff should be numbered for the marked tone, and for the transposed, so that often he ought to form diesis's where he sees b's flat, and vice versa, &c.

It is, I think, a great advantage of the system of the author of this Dictionary, to render the pricked music equally proper to all the tones, by changing one single letter. This occasions, that in whatsoever tone we transpose, the instruments which execute have no other difficulty than that of playing the notes, without ever having the embarrassment of the transposition. (Vide Notes.)

**TREBLE.** The sharpest of the parts in music, that which reigns above all the rest. It is in this sense that we say of the instrumental music, a treble of the violin, a treble of the flute and hautboy, and in general a treble of symphony.

In vocal music, the treble is executed by the voices of women, children, and also by castrats, whose voices, by reports difficult to conceive, gains an octave above, and loses one below, by means of this mutilation.

The treble is generally divided into first and second, and even sometimes into third.

The vocal part, which executes the second treble, is called *bass treble*, and there are also made recitatives for the voice only for this part. A beautiful *bass treble* full and sonorous, is not less esteemed in Italy, than the clear and sharp voices; but they pay no regard to them in France. However, by a caprice of the fashion, I have seen a *Mad. Gondre*, at the Parisian Opera very much applauded, who had in effect a very beautiful *bass treble*.

**TREMBLING**

**TREMBLING.** A grace of fingering which the Italians call *trillo*; and which is oftener designed in french by the word *cadence*.

They also in former times made use of the term of *trembling*, in Italian *tremelo*, to advise those who played bow instruments to strike several times the note, with the same stroke of the bow as for the imitation of the *trembling* on the organ. Neither the name or the thing are used at present.

**HARMONIC TRIAD.** This term in music has two different senses. In calculation, it is the harmonic proportion; in practice, it is the perfect major concord which results from this same proportion, and which is composed of a fundamental sound, of its major third and its fifth.

It is called *triad*, because composed of three times.

And *harmonic*, because it is in harmonic proportion, and is the source of all harmony.

**TRIHMITON.** Is the name which the Greeks gave to the interval which we call minor third; they called it also sometimes *hemiditon*. (Vide *Hemi*, or *Semi*.)

**TRILL.** A passage in the air of several notes on the same syllable.

The trill is only an imitation of the instrumental melody, in the occasions where, whether for the gaiety of the air, or for the truth of the image, or for the force of the expression, it is necessary to suspend the discourse and prolong the melody; but we must besides manage that the syllable be long, its tone lively, and proper for leaving the throat, the facility of sounding clearly and lightly the notes of the trill, without tiring the organs of the finger, and consequently, neither those of the audience.

The most favourable vowels to extend the voice, are A's, then the full O's and E's; the I and U are little sonorous, much less the diphthongs. In regard to the nasal vowels, they ought never to form a trill. The Italian language abounding in O and A, is much properer for the inflections of the voice than the French, neither are the Italian musicians sparing of them. On the contrary, the French, obliged to compose almost all their syllabic music on account of the few favourable vowels, are constrained to give the notes a slow and plac'd movement, or to make the consonants disgusting, in making the syllables concur, which necessarily renders the air languishing or hard. I do not see how the French music can ever surmount this inconvenience.

It is a popular prejudice to think that a trill is always out of place in a sad and pathetic air; on the contrary, when the heart is moved in the most lively manner, the voice finds the accents more easily in words, than the mind can, and from thence comes the use of the interjections in all languages. (Vide *Neuma*.)

Z z z

It

It is not a less error to think that a trill is always well placed on a syllable, or in a word which bears it, without considering of the situation of the finger, if the sentiment which he should enter into, be at all suitable. The trill is an invention of modern music. It does not appear that the ancients made any use of it, or even struck more than two notes on the same syllable. This difference is an effect of that of two pieces of music, one of which was submissive to the language, whilst the other gave it the law.

**TRIMELES.** A kind of nome for the flutes in the ancient music of the Greeks.

**TRIMERES.** A name which was executed in three consecutive modes, viz. the phrygian, the doric, the lydian. Some attribute the invention of this composed nome to Sacadas of Argos, others to Clonos Thegeates.

**TRIO.** In Italian Perzetto. A music with three principal or reciting parts. This kind of composition is looked upon as the most excellent, and ought also to be the most regular of all. Besides the general rules of the counter point, there are more rigorous ones for the trio, whose perfect observation tends to produce the most agreeable to all the harmonies. These rules all flow from this principle, that, the perfect concord being composed of three different sounds, we must in each concord, to fill the harmony, distribute these three sounds, as much as possible, to the three parts of the trio. In regard to the dissonances, as we ought never to double them, and as their concord is composed of more than three sounds, there is also a great necessity for diversifying them, and to make a good choice besides of the dissonance of the sounds also, which ought in preference to accompany it. From thence arise these different rules, of never passing a concord without causing the third or sixth to be heard; consequently of avoiding to strike at the same time the 5th and octave, or the 4th and 5th; of not practising the octave but with great precaution; and never to sound two together, even between different parts; to avoid the fourth as much as possible, for all the parts of a trio, taken 2 by 2 ought to form perfect duets. From thence, in a word, are all those smaller rules of detail, which we practice without even studying them, when we are well acquainted with their principle.

As all these rules are incompatible with the unity of melody, and as we never hear a regular and harmonious trio have a determined and sensible air in the execution, it follows, that the rigorous trio, is an erroneous genus in music. These so severe rules have been long since abolished in Italy, where they never looked on a piece of music that does not sing as good, however harmonious it may be in other respects, and whatever trouble its composition may have cost.

We



We should here recollect what I have said at the word duet.

These terms, duet and trio, are only understood of the principal and forced parts; and we omit the comprehension of accompaniments, &c. so that a piece with 4 or 5 parts, cannot still be more than a trio.

The French, who are very fond of the multiplication of parts, provided they find concords more easily than airs, not satisfied with the difficulties of the ordinary trio, have imagined what they also call double trio, whose parts are doubled, and all forced. They have a double trio of the *Sieur Duché*, which passes for a master piece in harmony.

**TRIPLE.** A kind of measure, in which the measures, the times, or the aliquots of those times, are divided into three equal parts.

We may reduce to two general classes, this infinite number of triple measures, with which *Bononcini*, *Lorenzo*, and *Brossard* after them, have loaded, the one his *Musico Practico*, the other his *Alberi Musicali*, and the third his *Dictionary*. These two classes are the measure ternary, or of three times, and the binary, whose times are divided into sub-triple powers.

Our ancient musicians looked upon the three timed measure as much superior to the binary, and gave it, on that account the name of perfect mode. We have explained at the words mode, time, prolation, the different signs which they made use of to express these measures according to the different powers of the notes, which filled them; but whatever these notes were, as soon as the measure was triple or perfect, there was always a kind of note, which even without point, filled exactly a measure, and was sub-divided into three other equal notes, one for each time. So in the triple perfect, the breve was equal, not to two, but three semi-breves, and in the same manner with the other kinds of triple measures. There was however, a case excepted; it was when this breve was immediately preceded or followed by a semi-breve, for then the two together forming only a just measure, whose semi-breve was equal to a time, there was a necessity for the breve to be equal to two only, and so with the other measures.

By this means were formed the times of the triple measure, but in regard to the sub-divisions of these same measures; they were always formed according to the sub-double computation, and I know no ancient music, where the times are divided into sub-triple powers. The moderns also have several three timed measures of different powers, the simplest of which was marked by a 3, and filled with a pointed minum, forming a note for each time. All the rest are measures, called doubles, on account of their sign being composed of two cyphers. (*Vide Measure.*)

The second kind of triple is that which is connected, not to the number of the times in the measure, but to the division of each time

time in sub-triple computation. This measure is, as I have just said, of modern invention and is subdivided into two kinds, two timed and three timed measures, the one of which may be considered as doubly triple measures, viz. 1st. By the three times of the measure, and 2dly, by the three equal parts of each time. The triples of that last kind are all expressed in double measures. The triples of this last kind are all expressed in double measures.

Here is a recapitulation of all the triple measures used at present.

Those marked with an asterisk, are no longer used.

I. Triples of the first kind, that is, whose measure is three timed, and each time divided into sub-double computation.

	*3	3	3	3	*3
*3.	1	2	4	8	16.

II. Triples of the second kind, that is, whose measure is two timed, and each time, sub-divided into sub-triple computation.

6	6	6	12	*12
2	4	8	8	16

These two measures are struck at four times.

III. Composed triples, that is, whose measure is three timed, and each time again divided into three equal parts.

*9	9	*9
4	8	16

All these triple measures are also more simply divided into three kinds, reckoning as such only those which are struck at three times viz. The triple of minims, which contains a minim by time, and

is thus marked  $\frac{3}{2}$ .

The triple of notes, which contains a crotchet by time, and is thus marked  $\frac{3}{4}$ .

[And

And the triple of demi crotchets, which contained a demi crotchet by time, or a pointed crotchet by measure, and is thus marked

$$\frac{3}{8}.$$

**TRIPLED.** A tripled interval is that which is conveyed to the triple octave.

**TRIPLUM.** Is the name given to the sharpest part in the beginnings of the counter point.

**TRITE.** Was reckoning from sharp to flat, as the ancients did the third chord of the tetrachord, that is, the second in reckoning from flat to sharp. As there were five different tetrachords, there ought to have been as many trites; but this name was not in use, but in the three sharp tetrachords. For the two flat, Vide Parhypate.

Wherefore there were the hyperbolean trite,, the diezeugmenon and synnemenon. (Vide System, Tetrachord.)

Boetius says, that the system not being yet composed of more than two conjoint tetrachords, the name of trite was given to the fifth chord which was also called paramesis; that is, to the second chord in ascending from the tetrachord: But that Lycaon the Samian, having inserted a new chord between the 6th or paranete and trite, this preserved the single name of trite, and lost that of paramesis, which was given to this new chord. This is not entirely what Boetius says; but in this manner it must be explained to understand it.

**TRITON.** A dissonant interval composed of three tones, two major and a minor, and which may be called superfluous fourth.

This interval is equal on the keys, to that of the false fifth; however its numerical powers are not equal, that of the triton being only from 32 to 45; which comes from the triton, being no more than a major tone in the equal intervals on each side, instead of the two major semi-tones in the false 5th.

But the most considerable difference of the false 5th, and the triton is that the one is a major dissonance, which the parts save, in being removed; and the other a minor dissonance, which the parts save by drawing near to them.

The concord of the triton is only the over throwing of the sensible concord, whose dissonance is conveyed to the bass. From whence it follows, that this concord ought to be placed only on the fourth note of the tone, which should be accompanied by the second and saved by the sixth.

**TO TUNE** an Instrument.

Is to extend, or to loosen the chords, to lengthen or shorten the pipes, to increase or diminish the mass of the sonorous body, until  
all

all the parts of the instrument are in the tone which they ought to have.

To tune an instrument, we must first fix a sound, which serves others as a term of comparison. This is what we call to take or give the tone. (*Vide Tone.*) This sound is generally the *ut* for the organ and harpsichord; the *la* for the violin and bass; which have this *la* on a chord, a *vide*, and in a medium proper for being easily caught by the ear.

In regard to flutes, hautboys, bassoons, and other wind instruments, they have their tone nearly fixed, which cannot by any means be changed but in changing some piece of the instrument.

We may also lengthen them a little at the junction of the pieces, which rather lowers the tone; but there must necessarily result false tones from these variations, because the just proportion is broken between the total length of the instrument, and the distances from one tone to another.

When the tone is determined, we connect with it all the other sounds of the instrument, which ought to be fixed by the concord according to the intervals suitable to them. The organ and the harpsichord accord by 5ths until the partition be made, and by octaves for the remainder of the keys; the bass and the violin by 5ths. The viol and guitar by 4ths and 3rds, &c. In general we choose consonant and harmonious intervals, that the ear may more easily catch their justness.

This justness of intervals, cannot be observed in practice, in all its rigor, and for them all to accord together, each one in particular must undergo some alteration. Each kind of instrument has particular rules, and a method of according for this purpose. We take notice that the instruments, from whence we draw the sounds by breathing, as the flute and hautboy, rise insensibly when we have played some time, which happens, according to some from the humidity, which proceeding from the mouth with the air, breathes into and shortens them; or rather, according to the doctrine of *Monsr. Euler*, is, that the heat and refraction which the air receives during the inspiration, renders its vibrations more frequent, diminish the weight, and by this means augmenting the relative weight of the atmosphere, render the sound rather sharper.

Whatever the cause may be, we must in tuning, pay attention to the nearest effect, and force the word a little when we give or receive the tone on these instruments; for to remain in tune during the concert, they should be a little too low in beginning.

**TUNIST.** We call tunists of the organ or harpsichord, those who go in churches or houses, to accommodate and tune the instruments, and which in general, are the makers of them.

**TUNE.** A kind of modification of the human voice, by which we form varied and appreciable sounds. Let us take notice, that to  
give

give all the universality to this definition which it ought to have, we must not only understand by appreciable sounds, those which may be assigned by the notes of our music, and rendered by the touches of our keys; but all those, by which we may prove or feel the unison, and calculate the intervals in any manner soever. It is very difficult to determine in what the voice which forms the words, differs from that which forms the tune.

This difference is sensible, but we cannot very clearly perceive in what it consists, and when we seek to find it, we find it not. Mons. Dodart has made anatomic observations; by favor of which he thinks really to discover, in the different situations of the larynx, the cause of two kinds of voice. But I do not know if these observations or the consequences drawn from them, are to be depended on. There seems to be wanting to the sounds which form the discourse, no more than permanence, to form a real tune: It appears also, that the different inflexions which we give to the voice in speaking, form intervals which are not at all harmonic, which form no parts of the system in our music, and which consequently not being expressed in notes, are not properly a tune for us.

The tune does not seem natural to mankind. Tho' the savages of America sing, because they speak, yet a true savage never sung.

The dumb dont sing, they form only accents without permanence, a disgustful bellowing which their wants draw from them.

I should doubt, if the Sieur Pereyre, with all his ingenuity, could ever draw from them any musical air. Children scream, cry, but they dont sing. The first expressions of nature have nothing in them melodious or sonorous, and they teach to sing, as to speak. The melodious and appreciable tune, is only an artificial imitation of the accents in the speaking or passionate voice. We cry, we complain, without singing; and as, of all imitations, the most interesting is that of the human passions, so of all the methods of imitating, the most agreeable is the tune.

Tune, applied more particularly to our music, in its melodious part, is that which results from the duration and succession of sounds, that, from whence the whole of the expression depends, and to which all the rest are subordinate. (*Vide Music, Melody.*) Agreeable tunes strike immediately, they are easily engraved in the memory; but they are often the rock of composers, because knowledge is only necessary for the heaping together of concords, but talents are wanting for a pleasing air. There are in every nation turns of music trivial and worn out, into which musicians are incessantly falling. There are others rough, which are never used, because the public always oppose them. To invent new tunes, belongs to the man of genius; to find those that are beautiful, belongs to the man of taste,

Lastly

Lastly, in its most confined sense, tune is said only of vocal music and in that which is mingled with symphony; we call the parts in tune those which are destined for the voice.

**TUTTI.** This word is often written in the parts of symphony in a concerto, after this other word *solo*, which marks a recitative.

The word *tutti* expresses the place where a recitative finishes, and where the whole orchestra begins afresh.

**TWELFTH.** An interval composed of 11 conjoint degrees, that is, of 12 diatonic sounds, reckoning the two extremes. It is the octave of the 5th.

Every sonorous chord renders, with the principal sound, that of the 12th, rather than that of the 5th, because this 12th is produced by an aliquot of the entire chord, which is the third; whereas the two thirds which would give the 5th, are not an aliquot of this same chord.

## U.

**UNCOMPOSED.** An uncomposed interval is that which cannot be resolved into smaller intervals, and has no other element than itself, such for instance, as the enharmonic diesis, the comma, and even the semi-tone.

Amongst the Greeks, the uncomposed intervals were different in the three genera, according to the method of tuning the tetrachords. In the diatonic, the semi-tone, and each of the two tones which follow it, were uncomposed intervals. The minor third, which is found between the 3rd and 4th chord in the chromatic genus, and the major third between the same chords in the enharmonic, were also uncomposed intervals. In this sense, there is only a single uncomposed interval in the modern system, viz. The semi-tone. (Vide Semi-tone.)

**UNISON.** An unison of two sounds, which are in the same degree, one of which is neither flatter or sharper than the other, and whose interval being null, gives only a reference of equality.

If two chords are of the same matter, equal in length, in thickness, and equally extended; they will be always in unison.

But it is false to say that two sounds in unison are so perfectly confounded, and have such an identity that the ear cannot distinguish them; for they may differ much in regard to the modification and the degree of force. A bell perhaps may be in unison with the chord of a guitar, a viola with the unison of a flute, and yet the sounds are not confounded.

The



The zero is not of the number, nor is the unison an interval, but the unison is in the series of intervals, what the zero is, in that of numbers; it is the term from whence they go out; it is the point of their beginning.

What constitutes the unison, is the equality of a number of vibrations made in equal times by two sounds. As soon as there is an inequality betwixt the numbers of these vibrations, there is an interval between the sounds that give them. (Vide Chord, Vibration.)

They tormented themselves greatly to know if the unison was a consonance: Aristotle denies it, Muris affirms it, and P. Merfenne, ranges himself in the lists of the latter. As that depends on the definition of the word consonance, I do not see what dispute could be occasioned on it. If we do not understand this word consonance, but as an union of two sounds agreeable to the ear, the unison will be assuredly a consonance; but if we add to it a difference from flat to sharp, it is clear that it will not be so. A more important question, is to know which is most agreeable to the ear of the unison or a consonant interval, such, for instance, as the octave or 5th. All those who have an ear exercised in harmony, prefer the concord of the consonances to the identity of the unison; but all those, who, without the custom of harmony, have no prejudice in regard to the ear, have quite a contrary judgment. The unison alone pleases them, or at most the octave. Every other interval appears to them discordant; from whence it would follow, I think, that the most natural harmony, and consequently the best, is in unison. (Vide Harmony.)

It is a known observation of all musicians, that that of the shaking and resonance of the chord, to the sound of another chord, ascends to the unison of the first, or even to its octave, or the octave of its 5th, &c.

The phænomenon may be explained in this manner.

The sound of a chord A puts the air in motion. If another chord B is found in the sphere of the movement of that air, it will act on it. Each chord, in a given time is only susceptible of a certain number of vibrations. If the vibrations, of which the chord B is susceptible, are equal in number to those of the chord A, the airs shaken by the one, acting on the other, and finding it disposed to a movement similar to that it has received, communicates it to it.

The two chords moving thus in equal pace, all the impulsions which the air receives from the chord A, and which it communicates to B, are co-incident with the vibrations of that chord, and consequently will augment its movement, instead of acting contrary to it. This movement, thus successively augmented, will very soon approach to a sensible shake. The chord B will then render a

A a a a

sound

found for every sonorous chord which shakes, sounds, and this found will necessarily be in unison with that of the chord of A.

By the same reason, the sharp octave will shake and resound also, but with less strength than in the unison; because the co-incidence of the vibrations, and consequently the impulsion of the air, is less frequent by the half. It is even still less in the 12th, or re-doubled 5th, and less in the 17th of major triple tierce, the last of the consonances which shakes and resounds sensibly and directly; for in regard to the minor third and sixths, they resound only by combination.

Every time that the numbers of the vibrations of which two chords are susceptible in equal time, are commensurable, we cannot doubt but that the sound of the one will communicate to the other some shake by their common aliquot; but this shake being no longer sensible below the four preceding concords, it is reckoned as nothing in the remainder. (Vide Consonance.)

It appears by this explanation, that a sound never makes another re-sound but by virtue of some unison; for any sound to ever always gives the unison of its aliquots; but as it cannot give the sound of its multiples, it follows, that a chord sonorous in its movement, can never make one resound flatter than itself. Whereon we may judge of the truth of the experiment from whence *Monf. Rameau* takes the origin of the minor mode.

**UNISSONI.** This Italian word written at length, or abridged in a partition on the stave vide of the second violin, denotes, that it should play in unison on the part of the first; and this same word, written on the stave vide of the first violin, shews, that it should play in unison on the part of the air.

**UNITY of MELODY.** All the fine arts have some unity of object, a source of the pleasure which they give to the mind; for the attention divided is by no means at ease, and when two objects employ us, it is a proof that neither of them satisfies us. There is, in music, a successive unity which is connected to the subject, and by which, all the parts, well united, compose a single *totum*, whose concinnity and connections we may easily perceive.

But there is another unity of object more clear and more preserved, and from whence there arises, without any attention being paid, the energy of music, and the force of its expressions.

When I hear our Psalms sung in four parts, I always begin to be seized, ravished, with this full and nervous harmony; and the first concords, when they are truly toned, incite me even to a shivering. But hardly have I heard the continuance of it for some minutes, than my attention is relaxed, the noise stuns me by degrees, soon it fatigues me, and in the end I am tired of hearing nothing but concords.

This

This effect does not happen when I hear good modern music, though the harmony is less vigorous; and I remember, that at the Opera House of Venice, far from a fine air fatiguing me, when well executed, I gave it, however great the length might be, continually a fresh attention, and listened to it with more pleasure at the end than the beginning.

This difference is derived from that of the character of the two modes, one of which is only a continuance of concords, and the other a *suite* of the air. The pleasure, besides of the harmony is only a pleasure of a pure sensation, and the enjoyment of the senses is always short: Satiety and fatigue are its close attendants. But, the pleasure of melody and music, is a pleasure of interest and sentiment, which speaks to the heart, and which the artist can always sustain and renew by dint of genius.

The music ought then necessarily to sing for the touching, the pleasing, and sustaining the interest and attention. But how in our systems of concords and harmony, can the music manage towards the singing parts? If each part has its peculiar air, all these airs, heard at the same time, will be mutually destroyed, and will no longer form an air. If all the parts form the same air, we shall have no more harmony, and the concert will be entirely in unison.

The method by which a musical instinct, a certain and dull sentiment of genius, has removed this difficulty without seeing it, and has even drawn an advantage from it, is very remarkable.

The harmony, which ought to stifle the melody, animates it, enforces it, determines it. The different parts without being confounded, answer the same effect; and tho' each of them appears to have its proper air, yet of all these re-united parts, we hear only one and the same air proceed. This is what I call unity of melody.

Here is the method of the harmony's itself concurring to this unity, instead of injuring them. They are our modes which characterise our music, and our modes are founded on our harmony.

Every time then that the harmony strengthens or determines the sentiment of the mode and modulation, it adds to the expression of the air, provided that it does not cover it.

The art of the composer, is then in relation to the unity of melody, 1st. When the mode is not sufficiently determined by the music, to determine it better by harmony. 2dly. To choose and turn its concords, so that the most lively sound may be that which sings, and that which makes it proceed best, may be in bass. 3dly. To add to the energy of each passage by rough concords if the expression is rough, and sweet if the expression is sweet. 4thly. To pay attention in the turning of the accompaniment to the forte piano of melody. 5thly, and Lastly, to manage so that the air  
of

of the other parts, far from being contrary to that of the principal part, may sustain it, second it, and give it a livelier accent.

Monf. Rameau, to prove that the energy of the music is all taken from harmony, gives the instance of a same harmony, which he calls a same air, which takes entirely different characters, according to the different methods of accompanying it. Monf. Rameau has not seen that he proved quite the contrary, from what he would prove, for in all the examples he gives, the accompaniments of the bass serves only to determine the air. A simple interval is not an air, it becomes air only when it has its place assigned in the mode; and the bass, in determining the mode and the place of the mode, which this interval occupies, determines in that case that interval to be of such or such an air; so that if by what precedes the interval in the same part, we determine the place, which it has in its modulation, I declare, that it will have its effect without any bass; wherefore harmony acts, in this occasion, only in determining the melody to be such or such; and it is purely as melody that the interval has different expressions according to the place of the mode wherein it is used.

The unity of melody requires that we never hear two melodies at a time, but not that the melody should never pass from one part to another: On the contrary, there is often elegance and taste to manage à propo's, this passage, even from the air to the accompaniment, provided that the words be all understood. There is even harmony ingenious, and well managed, wherein the melody, without being in any part, results only from the effect of the whole.

We here find an example, which, tho' rough, is sufficient to make what I have said, clearly understood.



A treatise would be necessary to shew in detail the application of this principle in duets, trios, quatuors, in chorusses, and pieces of symphony. Men of genius will sufficiently discover the extent and use of it, and their works will instruct others. I conclude then, and I say, that from the principle which I have just established, it follows, 1st. That all music which does not sing, is tiresome, whatever harmony it may have. 2dly. That all music, wherein we distinguish several airs together, is ill, and that there results from it the same effect as from two or more discourses pronounced at the same time, on the same tone. By this judgment, which admits of no exception, we see what we ought to think of these marvellous pieces of music, where one air serves as an accompaniment to another. It is in the principle of unity of melody, that the Italians have felt and followed, without knowing it, but which the French have neither known or followed; it is, I say, in this grand principle, that the essential difference of two pieces of music consists; and it is, I believe, what every impartial judge must say, who would give to each the same attention, if the thing might in all respects be possible.

When I had discovered this principle, I wished before I proposed it, to try at the application of it by myself: This essay produced *Le Devin de Village*, after the success of it, I spoke of it in my *Letter on the French Music*. It belongs to masters of the art to judge if the principle is good, and if I have truly followed the rules which issue from them.

**UNIVOCAL.** The universal consonances are the octave and its repliques, because all bear the same name. Ptolomy was the first which gave them this name.

**UPHOLDING or BURDEN.** The termination of all the couplets in a song, by the same words, and by the same air, which is ordinarily said twice.

**UPINGE.** A kind of song consecrated to Diana amongst the Greeks. (Vide Song.)

**UT.** The first of the six syllables of the gamut of Aretin, which answers to the letter C.

By the method of transpositions, we always call ut the tonic of the major modes, and the mediant of the minor modes. (Vide Gamut, & Transposition.)

The Italians finding this syllable ut too dull, substitute in its place, in sol-faing, the syllable do.

## V.

**V.** This capital letter serves to express the parts of the violin, and when it is a double V, it marks that the first and second are in unison.

**VARIATION.** A change of order in the sounds which compose the concords, and in the parts which compose the harmony, which is formed in substituting in the place of the bass, by octaves, the sounds which ought to be above; or in that of the extremities, those which ought to occupy the middle, and reciprocally.

It is certain, that in every concord there is a fundamental and natural order, which is that of the generation of the concord itself; but the circumstances of a succession, the taste, the expression, the beauties of the air, the variety, the attraction of harmony, often oblige the composer to change this order in varying the concords, and consequently the disposition of the parts.

As three things may be ordered in 6 methods, and 4 things in 24 ways, it seems at first that a perfect concord should be susceptible of 6 variations, and a dissonant concord of 24; since the one is composed of 4 sounds, and the other of 3, and that the variation consists only in the transpositions of octaves. But we must take notice, that in harmony we do not reckon as variations, all the different dispositions of the superior sounds, whilst the same sound continues in flat. Wherefore these two orders of the perfect concord *ut mi sol*, and *ut sol mi*, are taken only for the same name; which reduces all the vibrations of the perfect concord to three; and to four, all those of the dissonant concord; that is, to as many variations as enter into the different sounds of the concord: for the repliques of the same sounds are here looked upon as nothing.

Every time then that the fundamental bass is heard in the flattest part, or, if the fundamental bass is removed every time that the natural order is preserved in the concord, the harmony is direct.

As soon as this order is changed, or the fundamental sound without being in flat, are heard in some other part, the harmony is varied. It is a variation of the concord, when the fundamental sound is transposed. It is the variation of harmony, when the treble, or some other part moves, as the bass ought to do.

Wheresoever a direct concord is well placed, its variation will be also well placed, in regard to harmony, for it is always the same fundamental succession. So in each note of the fundamental, we are masters of disposing the concord at will, and consequently of making every moment a different variation; provided that we  
make



make no change in a regular and fundamental succession; that the dissonances are always prepared and saved by the parts which make them heard; that the sensible note always ascend; and that we avoid the false relations too rough in a same part. Herein lies the cleft of these mysterious differences which the composers place between the concords or treble syncope, and those wherein the bass ought to syncopate; as, for instance, between the 9th and the 2nd. This is, that in the first the concord is direct and the dissonance in the treble; in the others the concord is varied and the dissonance is in bass.

In regard to concords by supposition, we want more precautions to vary them. As the sound, which we add to the bass, is entirely strange to the harmony, it is often suffered only on account of its great distance from the other sound, which renders the dissonance less rough. If this added sound comes to be transposed in superior parts, as it is sometimes, unless this transposition is done with much art, it can produce therein a very bad effect; and this can never be practised happily, without cutting off any other sound of the concord. Vide at the word *concord*, the cases and choice of these cuttings off.

The perfect understanding of the variation depends only in study and art. The choice is another thing. We want an ear and taste. Experience is necessary in different effects; and tho' the choice of the variation is indifferent for the foundation of the harmony, it is not so for the effect and expression. It is certain that the fundamental bass is made to sustain the harmony, and reign below it.

Every time then that we change the order, and vary the harmony, we ought to have good reasons for it, without which we shall fall into the error of our modern music, where the treble sing sometimes as basses, and the basses always as trebles; where the whole is confused, varied, ill ordered, without any other reason than to pervert the order established, and to spoil the harmony.

On the organ and harpsichord the different variations of a concord, as long as they may be done with a single hand, are called *superficies*.

**VARIATIONS.** We understand under this name, all the methods of ornamenting and doubling an air, whether by diminutions, or by passages, or other graces, which adorn and figure this air. To whatever degree we multiply and charge the variations, it is always necessary, that across these flourishes we should have a view to the foundation of the air, which we call simple; and the character of each variation must at the same time be marked by differences which sustain the attention and prevent fatigue.

The

The symphonists often form variations extempore, or supposed so; but they are more often marked. The different couplets of the Folies d'Espagne, are so many marked variations. We often also find some in the French chacons, and in the small Italian airs for the violin and violincello. All Paris have gone to admire, at the spiritual concert, the variations of the Sieurs Guignon and Mondonville; and more recently of the Sieurs Guignon and Gaviniés, on the airs of the Pont-neuf, which had no other merit than to be thus varied by the most ingenious violin players in France.

**VAUDEVILLE.** A kind of song with couplets, which generally moves on laughable or satyrical subjects. We make the origin of this little lyric poem ascend to the reign of Charlemagne; but, according to the most common opinion, it was invented by a certain Basselin, of Vire in Normandy; and as to dance on these airs, they assembled in the Val de Vire, they were called they say, vaux de vire, and by corruption, vaudevilles.

The air of the vaudevilles is generally little musical. As we pay attention therein to the words only, the air serves only to render the recitative a little more forcible. We perceive besides in general, neither taste, or air, or even measure. The vaudeville belongs exclusively to the French, and they have some very striking and agreeable.

**VIBRATION.** The sonorous body in action removes from its state of quiescence, by gentle shakes, but sensible, frequent, and successive, each of which is called a vibration. These vibrations communicated to the air, bears the sensation of the sound to the ear, by this vehicle; and this sound is flat or sharp, according as the vibrations are more or less frequent at the same time. (Vide Sound.)

**VICARIER.** A familiar word by which Church Musicians express what those do, who run from town to town, and from Cathedral to Cathedral, to gather up some retributions, and live at the expence of the music masters, who are on their route.

**VIDO.** Chord a vido, is, on stringed instruments, such as the viol or violin, the sound which we draw from the chord in the whole of its length, from the sounding board as far as the bridge, without placing any finger on it.

The sound of the chords a vido, is not only flatter, but more resonant and full than when we place thereon a finger; which is caused by the softness of the finger, which hurts and intercepts the play of the vibrations. This difference occasions that good players on the violin avoid touching the chords a vido, to remove that inequality

inequality of the tone which has a bad effect, when it is not managed á propos. This method of executing requires laboured positions, which increase the difficulties of the play. But still, when we have once acquired a habit, we are really masters of our instrument; and in the most difficult tones, the execution then moves as in the easiest.

**VILLANELLE.** A kind of rustic dance, the air of which should be very gay, and of a very sensible measure. The foundation of this air is generally a couplet rather simple, on which we form doubles and variations.

**VIOL.** By this name, in the Italian music, is called that part which the French stile tenor; for the French often double this part, that is, make two for one: a thing which the Italians never do. The viol serves to unite the treble to the bass, and to fill, in an harmonious manner, the too great void which must remain between them. For which reason, the viol is always necessary for the concordance of the whole, even when it only makes the bass play on the octave, as it often happens in Italian music.

**VIOLIN.** The thing for the person. A symphonist who plays on the violin in an orchestra. The violins are generally divided into first, which play the first treble; and second, which play the second. Each of these two parts has its chief, or guide, which is also called the first; viz. The first of the first; the first of the seconds. The first of the first violins is also called in brief, first violin; it is the chief of the whole orchestra; it is that which gives the tone, guides all the symphonies, which rectifies them when in an error, and on which they must all depend.

**VIRGULUM.** By this term the musicians called that part of the note which has been since called tail.

**VOCAL.** What belongs to the tone of voices. “A vocal turn in singing.” “Vocal music.”

**THE VOCAL.** We sometimes take this adjective substantively, to express that part of the music which is executed by voices. “The symphonies of such an opera are tolerably good; but the vocal is shocking.”

**VOICE.** The sum of all the sounds which a man can, in speaking or singing, crying, &c. draw from his organs, forms what is called the voice; and the qualities of this voice depend also from those of the sounds which form them. So we may apply to the voice, all that I have already said of sound in general. (Vide Sound.)

I. The physicians distinguish the voice as a simple sound, such as the cry of children.

II. As an articulated sound, such as in discourse.

III. In music, which adds to the modulation and variety of the tones.

IV. In declamation, which seems to depend on a new modification in the voice, and even on the substance itself: a modification different from that of the music, and that of the words, since it may be united to each, or be cut off from it.

We may see, in the *Encyclopædia*, at the article “*Declamation des Anciens*,” from whence these divisions are drawn, the explanation which *Monf. Duclos* gives of these different kinds of voices. I shall content myself with transcribing here what he says of the singing or musical voice, the only one which is connected with my subject. “The ancient musicians established, after *Aristoxenes*, 1<sup>st</sup>. That the voice of music should pass from one degree of elevation or lowering, to another; that is, from one tone to another, by a leap, without passing through the interval which separates them; whereas that of the discourse is raised and lowered by a continued movement. Secondly, That the singing voice should be sustained on the same tone, considered as an indivisible point, which does not happen in simple pronunciation.

“This movement by leaps and stops, is, in effect, that of the voice in singing: but is there nothing more in music?

“There has been a tragic declamation which admitted the passage from one tone to another by a leap, and the stop on a tone. We take notice of the same thing in certain orators. This declamation, however, is different from the voice in singing.

“*Monf. Dodart*, who joined to the spirit of labour and discussion, the greatest knowledge of physics, of anatomy, and the play of the parts in the human body, has particularly given an attention to the organs of the voice. He observes, first, that such a man, whose voice in discourse is displeasing, may sing very agreeably. And so, on the contrary, secondly, That if we have not heard a person sing, whatsoever knowledge we may have of his speaking voice, we can form no true idea of his voice in singing.

“*Monf. Dodart*, continuing his researches, discovered, that in the singing voice, there is, besides that of the words, a movement of the whole larynx; that is, from the part of the trachean artery, which forms as a new canal, terminated in the glotta, which sustains and surrounds its muscles. The difference between the two voices comes then from that which is between the larynx, seated and in peace on those which are attached to it in words; and this same larynx suspended on its attached parts in action, and moved by a balance from high to low, and from low to high. This balance may be compared to the movement of the birds which hover in the air, or of the fish which are continued in the same place against the course of the tide; though the wings of the one, and the  
“fins

“ fins of the other, appear immoveable to the eye, they form  
 “ continual vibrations ; but so short and quick, that they are  
 “ imperceptible.

“ The balance of the larynx produces, in the singing voice, a  
 “ kind of ondulation, which is not in simple discourse. The  
 “ sustained and modulated ondulation, in fine voices, is too much  
 “ felt in the weak and decayed. This ondulation ought not to  
 “ be confounded with the cadences and trills which are formed  
 “ by the very quick and very delicate movements of the opening of  
 “ the throat, and which are composed of the interval of a tone,  
 “ or demi-tone.

“ The voice, whether for music or discourse, comes entirely  
 “ from the throat, in regard to the sound and the tone ; but the  
 “ ondulation comes entirely from the balance of the whole la-  
 “ rynx : It does not form a part of the voice, but it affects its  
 “ totality. It results from what I have laid down, that the  
 “ voice in music consists in the movement, by a leap from one  
 “ tone to another, in the continuance of the tones, and in that  
 “ ondulation of the larynx which affects the totality, and even  
 “ substance of the sound.”

For, first we may, at will, give or remove from the voice that  
 ondulation when we sing ; and we do not less sing when we clip  
 an united sound without any kind of ondulation. Secondly, the  
 sounds of the instruments do not differ in any kind from those of  
 the singing voice, in regard to their nature of musical sounds,  
 and have nothing by themselves by this ondulation. Thirdly,  
 This ondulation is formed in the tone, and not in the modifica-  
 tion : The proof of it is, that on the violin and other instruments,  
 we imitate this ondulation, not by any balance similar to the  
 supposed movement of the larynx, but by a balance of the finger  
 on the chord, which, thus shortened and lengthened alternatively,  
 and almost imperceptibly, renders two alternative sounds, in pro-  
 portion as the finger draws back, or advances. So the ondula-  
 tion, whatever Mons. Dodart says, does not consist in a very  
 light balance of the same sound ; but in the more or less frequent  
 alteration of two very neighbouring sounds ; and when the  
 sounds are too distant, and the alternative succours are too rough,  
 in that case the ondulation roughens.

I should think, that the true distinctive character of the voice  
 in music, is to form appreciable sounds, by which the unison may  
 be taken or felt, and passed from one to the other by harmonic  
 and commensurable intervals ; whereas, in the speaking voice,  
 either the sounds are not sufficiently sustained, and, as it were,  
 not in proper union to be appreciated, or the intervals which se-  
 parate them are not sufficiently harmonic, or their connections  
 sufficiently simple.

The observations which Mons. Dodart makes on the difference of the speaking voice, and that of singing, in the same man, far from being contrary to this explanation, confirm it; for as there are languages more or less harmonious, whose accents are more or less musical, we take notice also, in these languages, that the speaking and singing voices are connected or removed in the same proportion. So, as the Italian language is more musical than the French, the words are less distant from it in the music; and it is more easy to have the knowledge of a man we have heard speak, by his singing in that language. In a language which would be completely harmonious, as was the Greek at the beginning, the difference of the speaking and singing voices is null: We should have the same voice for speaking and singing. Perhaps that may be at present the case of the Chinese.

Here may perhaps be too much on the different genera of the voice: I now return to the singing voice, and shall confine myself to it during the remainder of this article.

Each individual has his particular voice, which distinguishes him from every other voice by some peculiar difference, as one face is distinguished from another; but there are also some of these differences, which are common to several, and which forming so many kinds of voices, require a particular denomination of each.

The most general character which distinguishes the voices, is not that which is drawn from their tone or volume; but from the degrees which this volume occupies in the general system of sounds.

We distinguish in general, the voices into two classes, viz. the sharp and flat voice. The known difference between each, is nearly an octave; which causes that the sharp voice really sings in the octave of the flat, when they seem to sing in unison.

The flat voices are the most general for men, the sharp for women; Eunuchs and children have nearly the same diapason of voice as women. All men however may even approach it in singing the faucet. But of all the sharp voices, we must agree, in spite of the prevention of the Italians for castrati, that there is no kind of voice comparable to that of women, either for the extent, or the beauty of the tone. The voice of children has little consistence, and no bass. That of eunuchs on the contrary, excels in alto; and as to the faucet, it is the most disagreeable of all the tones in the human voice. It is sufficient to be of that sentiment, to be attentive to the chorusses of the spiritual concert at Paris, and to compare their trebles with those at the opera.

All these different diapasons, reunited and put in order, form a general extent nearly of three octaves, which have been divided into four parts, three of which, called counter tenor, tenor and bass, belong to the flat voice; and the fourth only called treble, is  
assigned



assigned to sharp voices. On which subject, here are some remarks which I present to the reader.

I. According to the stave of the ordinary voices, which may be fixed nearly to a major 10th, by placing two degrees of interval between each kind of voice, and that which follows it, which is all the difference that can be given them, the general system of the human voice in the two sexes, which we make to pass three octaves, ought to contain only two octaves and two tones. It was in effect to this extent, that the four parts of music were bounded, long after the invention of the counter point, as we see in the compositions of the 14th age; where the same cleff, on four successive positions from line to line serves as the bass, which they called tenor; for the tenor, which they called contratenor; for the counter, tenor, which they called mottetu; and for the treble, which they called triplum. This distribution must really render the composition more difficult, but at the same time the harmony more confined and more agreeable.

II. To advance the vocal system to the extent of three octaves with the gradation I have mentioned, we should want six parts instead of four; and nothing would be more natural than this division: not on account of its connection with the harmony, which does not carry so many different sounds, but in regard to the voices, which are actually rather ill distributed. In effect, why should there be three parts in a man's voice, and one only in that of a woman; of the totality of the latter contains as great an extent as the totality of the rest? Let an interval of the sharpest sounds of the sharpest female voices be measured, with the flattest sounds of the flattest female voices. Let the same thing in a man's voice, and we shall not only find a sufficient difference to establish three parts on one side, and one only on the other; but this difference itself, if there is one, will be reduced almost to nothing. To judge clearly of this, we must not be confined to the mere examination of things such as they are, but should see what they might be, and consider that custom contributes much to the formation of voices on the character which we would give them. In France, where they are in want of basses, or counter tenors, and pay no attention to the bass trebles, the voices of their men take different characters, and the female voices keep one only; but in Italy, where they look on a beautiful bass treble as equal to the sharpest voice, there may be found amongst their women, very beautiful flat voices, which they call Contr' Alt, and very beautiful sharp voices, which are called Soprani. On the contrary, in the voice of the recitative, they have only tenors; so that, if there is only one character of voice for women in our operas, in theirs there is only one character for that of men.

In

In regard to the chorusses, the parts are generally so distributed in Italy, as in France, it is an universal custom, but arbitrary, which has no natural foundation. Besides, do we not admire in several places, and particularly in Venice, very beautiful music in grand chorus, executed by young girls only?

III. The too great distance of the voices between each other, which makes them all exceed their staves, obliges several to be subdivided. By this means we divide the basses, into counter basses, and bass tenors; the tenors into counter-tenors and concordants; the trebles into first and seconds; but in all this we perceive nothing fixed, nothing regulated on this principle. The general scheme of the French composers, is always to force the voice to make it scream rather than sing. 'Tis for this reason, that they appear at present to confine themselves to the basses, and counter tenors, which are in the two extremes. In regard to the tenor, a part so natural to man, that it is called for excellence, the human voice, it is already banished from our operas, where they forsake every thing natural; and by the same reason it will not be long before it is entirely extirpated from the French music.

We distinguish the voices by many other differences than those from flat to sharp. There are strong voices, whose sounds are bold and noisy; sweet voices, whose sounds are soft and fluted; lengthened voices, which have a great extent; fine voices, full, just, and harmonious. Amongst the many voices that I remarked in my short excursion to the metropolis of England, I observed several of the kind abovementioned. In what I have styled the fine voice, the Scotch were particularly excellent. I should not omit, tho' partiality might urge me, to pay that difference to a Foreigner which his merit demands, on which account, I must beg leave to make this short digression, to pay that respect to Mr. Keard's excellence, which the fullness, justness, and harmony of his voice may claim, without the smallest deviation from his modesty, tho' that extends so far as to require a foreign pen to tell his merits to the world. There are also the contraries to all this; there are rough and heavy voices; there are voices flexible and easy; there are some, whose sounds are unequally distributed to the one above, to others in the medium, to others below. There are equal voices also, which make the same tone be felt in their whole extent. It is the part of the composer to abstract from each voice, whatever may be advantageous to his character. In Italy, where every time that an opera is introduced on the stage, it is always a new music, the composers are always careful to appropriate all the parts to the voices which ought to sing them. But in France, where the same music continues for ages, each part must always serve to every voice of the same kind; and this is perhaps one of the reasons, why  
the

the French airs, far from acquiring any perfection, become day by day, more disgusting and tedious.

The most extended, the most flexible, the sweetest, the most harmonious voice that ever existed, appears to have been that of the Chevalier Balthasar Ferri, a Perugian of the last age; a singer uncommonly excellent, whom every sovereign in Europe retained in his court by turns, who was loaded with honours during his life, and whose glory and talents were celebrated after death by all the muses of Italy. All the writings composed to the praise of this celebrated musician, breathe delight and enthusiasm; and the agreement of all his contemporaries, shews, that so perfect and so uncommon talents were beyond envy. Nothing, say they, can express the graces of his voice, or the eclat of his music. He had, in the highest degree, all the characters of perfection in every kind: He was gay, bold, lively, grave, tender, at will, and every heart gave way to his pathos. Among the infinity of strong turns which he executed by his voice, I will cite one only. He ascended and re-descended, in one breath, two full octaves in a continual trill, marked on all the chromatic degrees with so much justness, though without accompaniment, that if any one had struck this accompaniment under the note where he was found, whether B flat or diesis, they instantly perceived so just a concord, as surprised all the audience. We call voice also, the vocal and reciting parts for which a piece of music is composed: So we say a molet for a single voice, instead of saying a molet in recitative; a cantata for two voices, instead of a cantata in duet, or with two parts. (Vide Duo, Trio.)

**VOLTE.** A kind of three timed air peculiar to a dance of the same name, which is composed of several turns and returns, whence it receives the name of volte. This dance is a kind of gaillard, and has not been used for some time.

**VOLUME.** The volume of a voice, is the extent or interval which is between the sharpest and flattest sounds which it can render. The volume of ordinary voices is about eight or nine tones: The most remarkable voices hardly ever pass the two octaves in just and full sounds.

## W.

**WORDS.** Is the name given to the poem which the composer sets to music, whether this poem be small or great, whether it be a drama or a song. The fashion is to say of a new opera,

opera, that the music is tolerably good, but the words detestable. We might say the contrary of the ancient operas of Lully.

WORK. We say the third work of Corelli, the fifth of Vivaldi, &c. &c. But these titles are no longer in use. In proportion as music improves, it loses these pompous names, by which our ancients thought they increased its merit.

---

## Z.

**Z** A. The syllable by which is distinguished in church-music, the *fi* B flat from the *fi* natural, to which is left the name of *fi*.

F I N I S.

Plate I. Ancient Powers  
Fig. 1.

Correspondant Silences	
The Maximum is	The Pause which fills 3 spaces is equal to a Maximum.
The Longue to 2 Breves	That which fills only 2 spaces is equal to a Longue
The Breve to 2 Semi-Breves	That which fills only 1 space is equal to a Breve
The Semi-Breve to 2 Minimes	That which is plac'd above and fills only half a space is equal to a Semi-Breve
The Minime is not divided	That which is plac'd below and fills the half of a space is equal to a Minime

Fig. 2. Major perfect Prolation



Fig. 3. Prolation Minor perfect

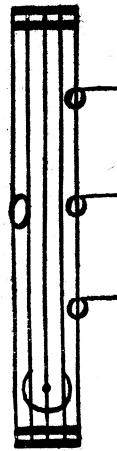


Fig. 4. Idem imperfect



Fig. 5. Idem imperfect



### Hymn of S<sup>t</sup> John

as it was anciently sung taken from a manuscript of Sens.

Fig. 6.

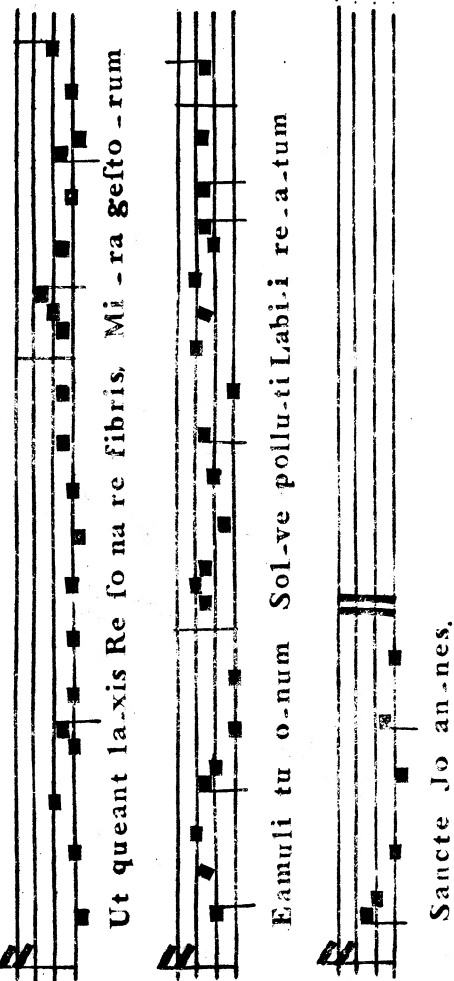






Plate II

Fig. 1. A general Scale of the modern System on the complete Keys a revallément.

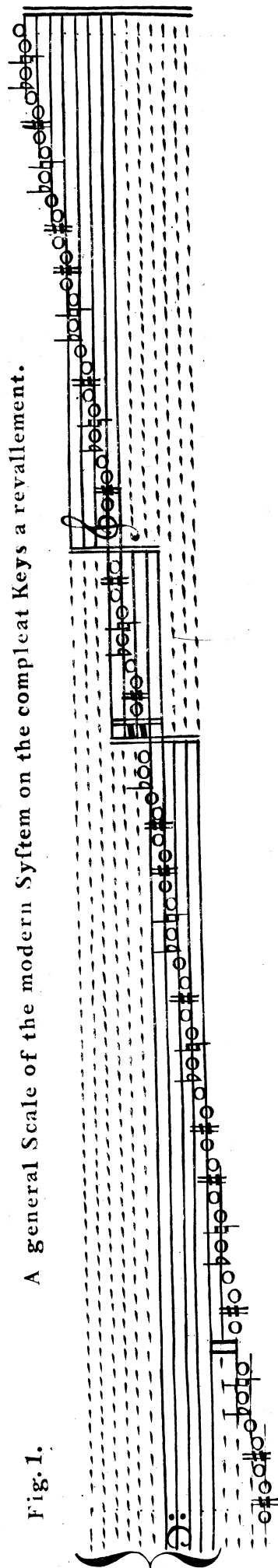


Fig. 2.

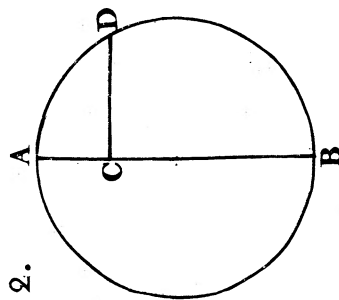


Fig. 3.

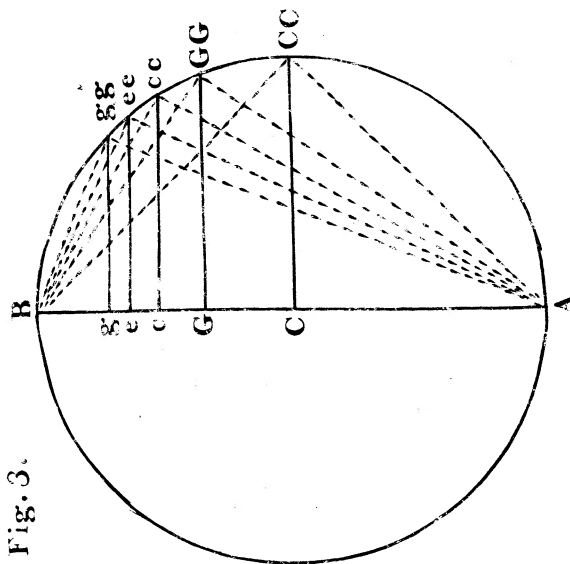


Fig. 4.

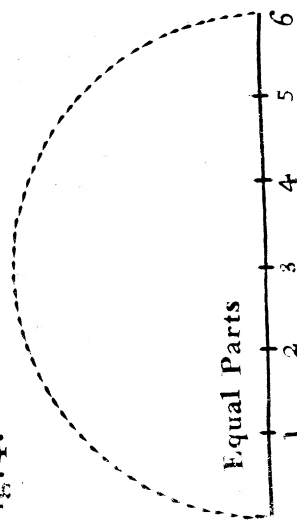


Fig. 5.

